

Ministry of Education and Science of Ukraine  
National University of Water and Environmental Engineering  
Educational and Scientific Institute of Automation, Cybernetics  
and Computer Engineering  
Department of Computer Technologies and Economic  
Cybernetics

**04-05-64M**

**Methodological guidelines**  
for the execution of laboratory work in the discipline  
**«Basics of Digital Technologies»**  
for undergraduate students of all NUWEE degree programmes  
of full-time and part-time forms of education.  
Module 2

Approved  
by the scientific-methodical  
quality council of NUWEE  
Protocol No 1, 18.01.2023

Rivne – 2023

Methodological guidelines for the execution of laboratory work in the discipline «Basics of Digital Technologies» for undergraduate students of all NUWEE degree programmes of full-time and part-time forms of education. Module 2 [Electronic edition] Vasyliv V. B., Kardash O. L., Joshi O. I., Reinska V. B. – Rivne : NUWEE, 2023. – 36 c.

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## **Introduction**

Digital competence is a key competence of the fourth industrial revolution. Confident mastery and use of digital technologies for education, employment, work, leisure and participation in public life is critically important for every citizen of Ukraine.

The aim of the course is to develop skills and abilities in such areas as: information and media literacy, communication and collaboration, creating digital content, protecting information in the digital environment, solving problems and lifelong learning.

The course is based on the European conceptual framework of digital competences for EU citizens (DigComp 2.1.).

The course "Basics of digital technologies" is divided into two content modules:

1. Digital technologies for working with text and data;
2. Creation and use of digital content.

Mastering of each module is checked using test tasks in the Moodle environment.

To successfully pass the course, the student must complete 15 laboratory works and pass two modules. Each laboratory work is evaluated in the range of 0-4 points. Each module - 0-20 points. To successfully pass the discipline, a student must score at least 60 points. The form of final control is an exam.

## **Laboratory work 8**

# **CREATION OF SITES USING ONLINE CONSTRUCTORS**

**Goal:** To learn how to create sites using closed CMS systems.

### **Theoretical information**

Content management system (CMS). CMS is a computer program or system used to provide and organize a common process of creating, editing and managing text and multimedia documents of a site.

Most modern CMS systems are implemented as a visual editor – a program that creates HTML code using a special simplified markup that allows the user to format this code (text) quite simply.

Today, it is quite popular to use site builders that provide tools for creating sites without the appropriate qualifications. The existing services have their own features and advantages, but one of the best projects in its field is the free Wix.com service.

Wix.com is a functional builder for creating sites from scratch, which will be great help for users, who are new to creating web documents. The whole process is as simple, relaxed and intuitive as possible - with the help of the Drag and Drop mechanism, you can easily drag the elements of the web page, and the selection of settings will help to change the basic template according to the task of the site.

The advantage of the Wix platform is:

- No programming knowledge or other special skills are required to use a constructor; the provided tools allow you to develop a Flash or Html5 site of varying complexity.
- Hundreds of unique designs for various project formats (from a portfolio to a business card site) or the option of creating a site from scratch.
- Creation of mobile sites, Facebook pages or blogs.
- Many settings for changing images, colors and fonts of the site provide opportunities to change the basic template.
- All web page elements are easily edited, moved and customized.
- Support for SEO parameters for indexing in search engines.

- Basic builder options are free. To expand the functionality of the site, paid tariffs are provided.

### ***Task 1 Creating an online store***

Students need to create a website. The topic of the site – online store, portfolio site, company site, the student chooses independently. Also, the student can use other platforms to create sites - Google, Tilda, Weblium.

The procedure for creating a site on the Wix platform.

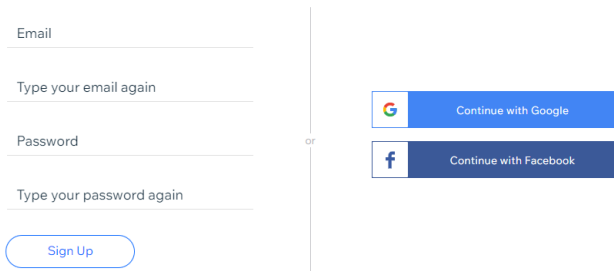
#### **Step 1. Registration**

In order to use the Wix.com platform, you need to go through a simple registration procedure, where you only need to enter your e-mail and password.

**Wix**

## **Sign Up**

Already have an account? [Log In](#)



The image shows a registration form for Wix. On the left side, there are four input fields: 'Email', 'Type your email again', 'Password', and 'Type your password again'. Below these fields is a blue rounded button labeled 'Sign Up'. On the right side, there is a vertical line with the word 'or' in the middle. To the right of this line are two social login buttons: 'Continue with Google' (with the Google logo) and 'Continue with Facebook' (with the Facebook logo).

#### **Step 2. Choosing a template**

After registration, the user can immediately create a site by choosing the appropriate topic.

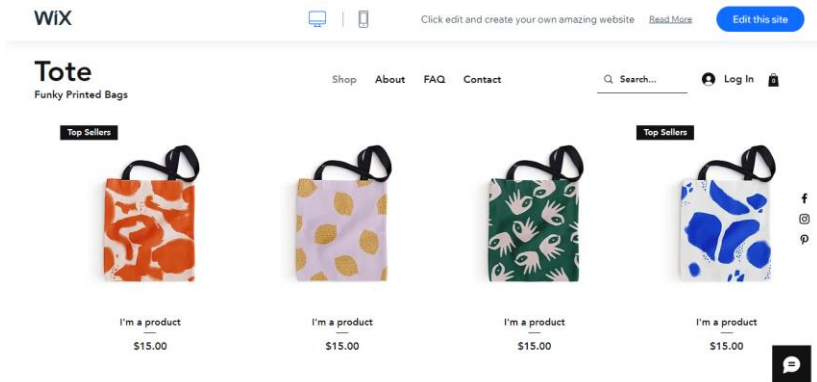
#### **Step 3. Editing and customizing the template**

After choosing a basic layout for the site, you need to click the "Edit" button to proceed to make your own changes to the finished design. The platform goes into editing mode, where many options and settings are provided for the user.

The finished template can be changed in one of the following ways:

- Click on the element that needs to be changed.
- Use the left side menu consisting of four items. Each item contains submenus that you can switch between and edit.

Below is an example of how to change options in the selected template.



Installing widgets does not require programming knowledge, installing plugins, etc. In the corresponding menu item, you should select the appropriate widget and place the element on the page by simple dragging. Depending on the settings, the widget can be displayed on one or all pages of the site.

Functions that are not in the constructor can be added using HTML code. But even without this, there are enough elements available for a standard full-fledged site. All elements of the page can be customized according to the needs of the user.

### ***Task 2 Publishing a site and creating a domain***

In the top right of the Wix.com editor, there are buttons for saving changes and viewing the created pages. The "Publish" item allows you to place the site on the server and make it available to all Internet users. As Wix.com platform is free, therefore, a domain address restriction will look like this: [http://your.login.wix.com/site\\_name](http://your.login.wix.com/site_name).

For the full functioning of the online store, you need to connect Wix premium rates.

### ***Report on laboratory work 8***

The student sends a link to the published site.

## Laboratory work 9

### WEB AND SMM – ANALYTICS

**Goal:** To learn how to analyze web sites and social networks attendance and perform evaluation of quantitative and qualitative traffic indicators with usage of Google Analytics.

#### **Theoretical information**

Web-analytics – tracking and gathering quantitative and qualitative information about web-sites attendance and analyzing that information. Internet analytics is designed to optimize site's and web-marketer's work.

Tasks of web-analytics:  
Site's attendance analysis  
Evaluation of quantitative and qualitative traffic indicators  
Detection of the most profitable traffic sources  
Problems detection  
Detection of potential for increasing conversion  
Lowering the cost of one customer



#### ***Task 1 WEB-analytics of site with usage of built-in instruments***

Work with data of Google Analytics – official online Google service

Google Analytics – Google's convenient and multifunctional service for analysis web-sites and mobile applications. Allows web-masters to check indexing status, create detailed statistics of site's audience and optimize visibility of their web-sites.

For getting acknowledged the abilities of Google Analytics, Google suggests you to use demo Google Analytics account for online market Google Merchandise Store.

Work's course:

1. Find Google Merchandise Store's site (<https://shop.googlemerchandisestore.com/>)
2. Get access to demo Google Analytics account



Demo Google Analytics account is fully functional account that any Google user can use. It allows to get acquainted with companies real data and experiment with Google Analytics functionality.

To get access to demo account click on this link: <https://analytics.google.com/analytics/web/demoAccount>. If you already have Google account, you will be suggested to sign in; If you don't have Google account, you will be suggested to create one and sign in.

### 3. Perform traffic analysis of Google Merchandise Store.

Data is transferred into Google Analytics account from Google Merchandise Store – electronic commerce site, where Google branded goods are sold. Data is typical for e-commerce sites and include these categories:

Data about sources of traffic: information about places from which users are redirected to web-site. In particular, data about regular traffic is provided, traffic from ads and traffic from social media.

Data about content: information about user behavior on site. For instance, data about URL-addresses of sites, that user attended before, data about interaction with content etc.

Transactions data: information about transactions, that happened on Google Merchandise Store.

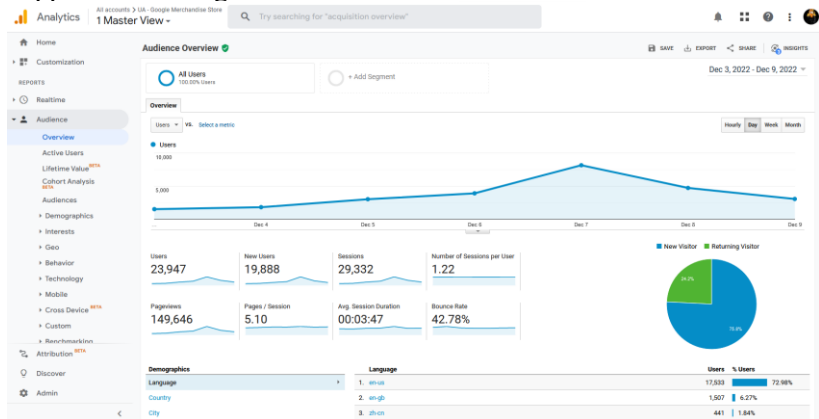


Figure 1 Google Analytics from Google Merchandise Store

In student's **report on results** of task, it is necessary to display data on:

- Countries from which users attend site, quantity of users from Ukraine
- Types of devices
- Quantity, length of attendance
- Quantity of users this month
- General conversion indicators (coefficient of transactions, quantity of transactions, income)

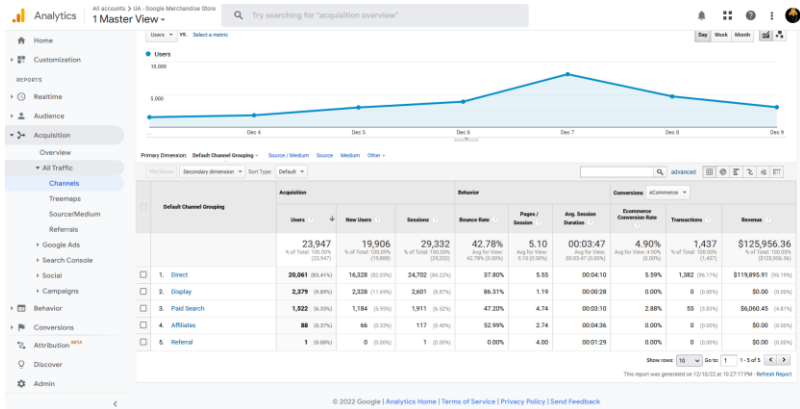


Figure 2 Example of conversion analysis by channels

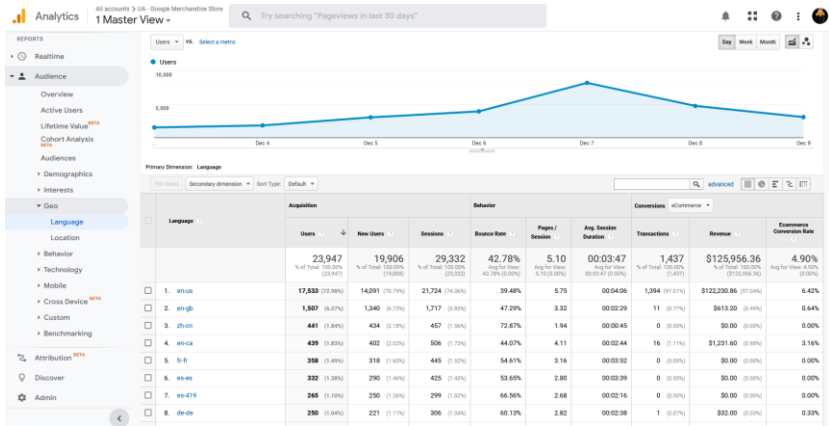
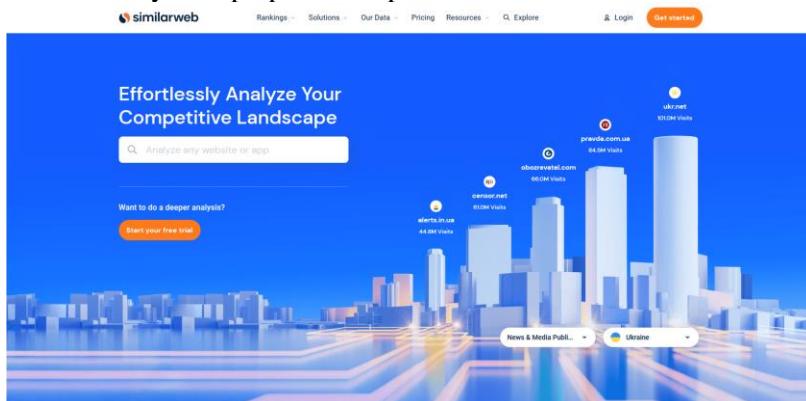


Figure 3 Example of conversion analysis by language

## ***Task 2 Analysis of online store with usage of SimilarWeb service***

When promoting a site, it is necessary not to only check its traffic and positions, but also track competitors' activity. There are thousands of other sites promoting in searching systems except yours. And to overtake them, you have to follow them and react promptly, inventing countermeasures. For these purposes SimilarWeb suits ideally. (<https://www.similarweb.com>)

Service SimilarWeb – instrument for complex analysis own and websites of competitors. With its help it is possible to find leaders in particular sphere and check all key points: promoting channels, site's adaptability etc. Information is displayed in table-like and graphical appearance, and if necessary, it can be downloaded for detailed study on laptop or smartphone.



Work's course:

1. Decide a site for performing analysis (NUVHP or other university)
2. With SimilarWeb determine:
  - General data about traffic
  - Statistics of attendance
  - Sources of traffic
  - Referral traffic
  - Information about search traffic
3. Print-screen with results add to report

### ***Task 3 SMM-analysis***

#### **Theoretical information**

Marketing in social media or SMM (social media marketing) – set of measures in terms of using social media as channels for promoting companies and solving other business-tasks.

For gathering and structuring data, calculation of parameters and indicators, based on which we will make conclusions, special services are required. One of them is Popsters <https://popsters.com/>

Popsters analyze content from all popular platforms: Facebook, Instagram, Telegram, Twitter, YouTube, Pinterest. Determines the most popular posts for any site. Calculates ER. Report about any period can be downloaded in convenient format.

#### **Work's course:**

Create account in Popsters

Acknowledge Popster's possibilities

Perform analysis own account in social media or account of university

#### ***Report on laboratory work 9***

Report must contain titled page, content, Print-screen of completed tasks, conclusions.

## **Laboratory work 10**

### **CREATING INTERACTIVE DIGITAL CONTENT**

**Goal:** Learn how to create mobile applications, digital content using online-constructors

#### **Theoretical information**

Smartphones and other mobile devices have not only become the part of our life, but also they are our continuation. With their help we can not only communicate with each other, but also buy goods from stores, buy tickets, book accommodation, call taxi, use phones as navigators, photo and video cameras, readers, online-banks, and simply as a way to kill time and have fun. The tendency to switch from simple phones to multifunctional smartphones only increases every year.

Relevance of mobile applications development is increasing every month. Hundreds of new mobile applications appear every day. It seems impossible to invent something new, but good inventions combined with good marketing can bring a lot of money to author. As a confirmation to that is TikTok, ratings of which continue to skyrocket even now.

The first step in development is usage of specialized online-constructors. Constructors are designed to create mobile applications without additional knowledge of programming languages or other complicated stuff. All redactors can work in automatic or semi-automatic way and allow to create application for website, blog, store, company etc. in a matter of few minutes. Most of them are free. However, it's not that simple. Free applications have usually restricted functionality and will have ads.

#### ***Task 1 Create mobile application using online-constructor***

Step 1. Register on website <https://appsgeyser.com/>

# Join us and make apps

Already have an account? [Log In](#)

E-mail:

Password:

[Show](#)

**SIGN UP**



Continue with Google



Continue with Facebook

Step 2. Choose type of application. This particular example shows the process of creating a game.



**App for Likee**

Convert Likee Links And Profiles to App



**Slot machine**

Casino Simulator Game App with Slot Machine



**Matching Puzzle**

Create Matching Puzzle Game for Kids and Adults



**Word Search**

Create Word Search app



**Quiz**

Make Quiz game with Trivia questions



**Fishing**

Create Fishing Arcade Game

Step 3. Choose name of the game, its design and other elements of application

## CREATE 15 GAME PUZZLE APP

Refresh preview

### APP SETTINGS

**Make 15 Puzzle game app for Android** without coding with free Game App Maker. Make a sliding puzzle game with custom pictures. Let your users move tiles and solve the original images. Find the unique theme for your puzzles, so your gamers will be more engaged and return again and again.

**How to make 15 Puzzle app for Android:** upload multiple images (use PNG files for better quality), name your app and upload an icon.

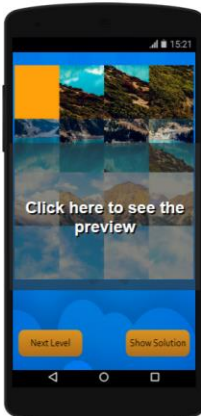
To create an engaging game app, you should find your niche. You can make a sliding puzzle for kids, with images of nature, scenes from movies or cartoons, etc. Think outside the box to find the niche for your game. Use the keywords in the name and description, localize your 15 Puzzle app in your home language, make creative screenshots. Look at your competitors and build a quiz app like 15 Lines, 15 Slimes, 15 Puzzle Challenge, Classic 15 Puzzle etc.

Game images:

- +attach picture | delete picture
- +attach picture | delete picture
- +attach picture | delete picture

+ Add image

**NEXT**



### Step 4. Download application on smartphone using QR-code

AppGeyser Select your app:  LOGOUT CREATE APP

#### Download your app

Send app to your E-mail

Scan QR-code with your phone camera to download APK

Your e-mail:

**SEND APP TO EMAIL**

or download directly:

- apk (App Bundles) | apk (Android Packages) | rebuild and download new apk

IMPORTANT! You need to add correct Data Safety policy for Google Play publication. Check our guide: [How to complete Data Safety section for my publication?](#)

Your users can download your app from:

- 
- 

**Enroll in App Signing or Update your app with third-party APK**

**Get access to your app's Java keystore and enroll into Google Play App Signing.**

Upon receiving keystore file you will be able to update your app with any APK signed with your key. It can be AppGeyser app from other account, app from other builder, or you custom developed app.

We assume that you can decide to monetize your app with your own solutions and drop AppGeyser revenue share program. To cover the costs of this transition we must charge you with \$200 for keystore file.

**GET KEYSTORE**

SUPPORT

### Step 5. Have fun

### *Task 2 Creating banner (media) ads using online-constructors*

#### Theoretical information

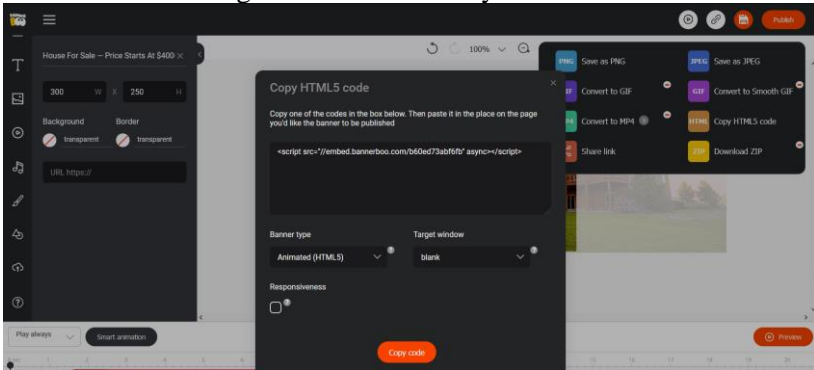
Banner is an image, that displays for users on websites-partners of ads network. They can be interactive (.gif) and have different formats and sizes. In general, they are used to promote certain brand/good/service, form certain reputation, encourage to do

something. They can be displayed as images JPG, light animation GIF or complex animation Flash, HTML 5.

**Work's course:**

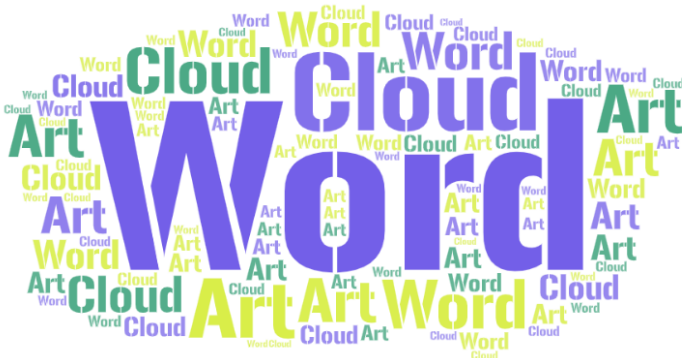
Register your account in <https://bannerboo.com/ua> (or in other free online redactors of banners (<https://crello.com/uk/create/display-ads> )

Using templates create banner for your business. You can also create animated congratulation on holiday.



**Task 3 Make a words cloud**

WordArt.com is an internet service that allows you to create easily word clouds. It is possible to master it even for people who don't have any knowledge about graphical design.



<https://wordart.com/>

**Task 4 Creating visual content for social media.**

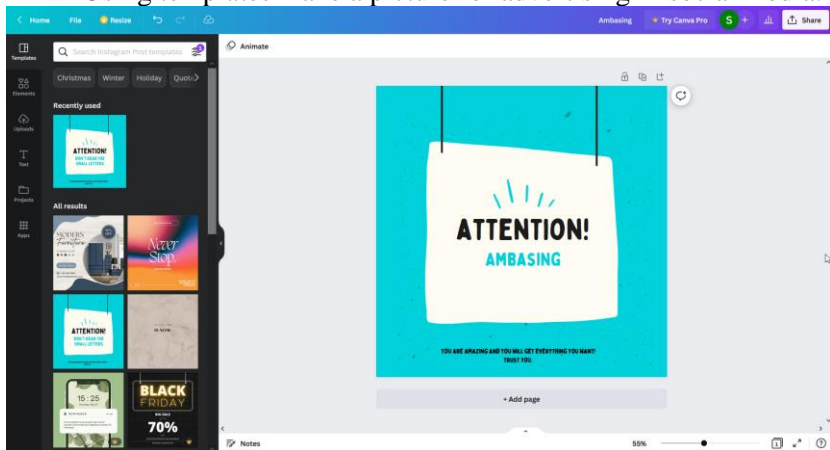


Social media can't exist without visual content. There are a lot of free and intuitive online services that help creating uncomplicated, but simultaneously sophisticated visual content and video content for social media. Their main advantage is that in contrast with PhotoShop, they don't demand a lot of skill. Popular content constructors: [https://www.canva.com/uk\\_ua/](https://www.canva.com/uk_ua/), <https://piktochart.com>

**Work's course:**

Create an account in [https://www.canva.com/uk\\_ua/](https://www.canva.com/uk_ua/)

Using templates make a picture for advertising in social media.



*Report on laboratory work 10*

Report on laboratory work 10 must contain link on mobile application, banner, word cloud, advertising picture.

## Laboratory work 11

### COMMUNICATION AND INTER IN DIGITAL SOCIETY.

### GOOGLE SERVICES.

**Goal:** Learn to create events, documents, tables, forms and share them with colleagues.

#### Theoretical information

As you know, Google is the world leader among search engines, but in addition, Google offers a number of unique services and tools. Moreover, some of the services and tools were developed independently, some were purchased from third-party organizations.

You need a Gmail account to access all Google services.

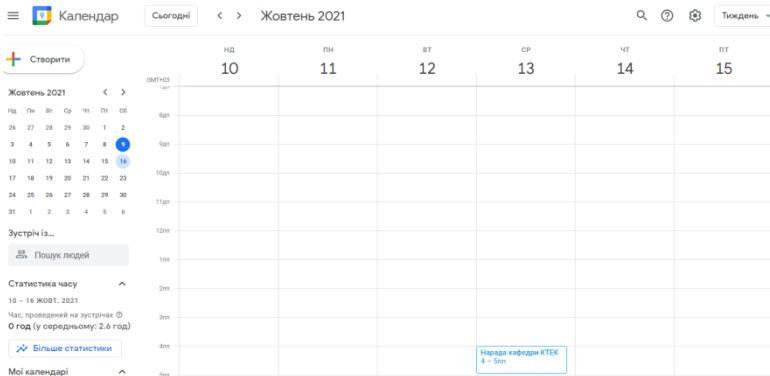


#### *Task 1 Google Calendar Service*

Google Calendar is a service for planning meetings, events, and affairs linked to the calendar. Like most Google services, Calendar is available in two versions - a web and mobile application, available on Android and IOS devices.

Work's course:

1. Create an event for the current week and invite teammates.
2. Add one of the public calendars to your calendar.



### ***Task 2 Google Drive Service***

Google Drive is a file hosting service created and maintained by Google. Its features include online file storage, file sharing, and collaborative editing. Google Drive includes Google Docs, Sheets, and Slides, a suite of office applications for collaborative work on text documents, spreadsheets, presentations, drawings, web forms, and other files.

Students need to add completed laboratory work to the Disk.

### ***Task 3 Service Google Documents***

Create a Google Doc and share it with a colleague.

### ***Task 4 Google Sheets Service.***

Create a Google Sheet and share it with a colleague.

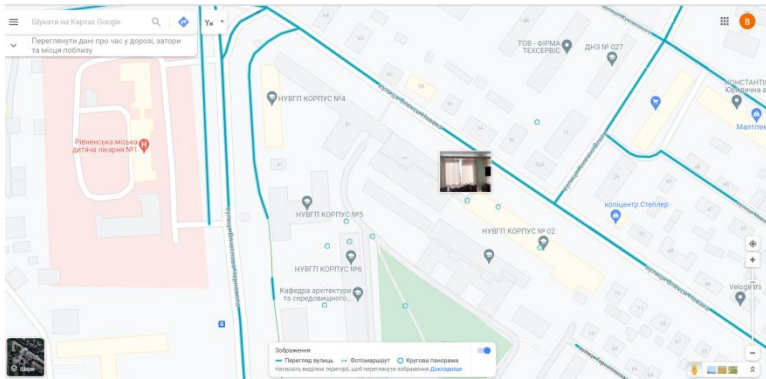
### ***Task 5 Google Forms Service***

Create a Google Form with 3-5 questions and invite your colleagues to survey. Form the results of the survey in Google Sheets.

### ***Task 6 Adding Circular Panoramas to the Google Maps Service***

Google Maps is a free mapping service from Google, as well as a set of applications built on the basis of this service and other Google technologies. The service is a map and satellite images of the whole

world and provides users with the ability to view streets in a panoramic view, analyze traffic in real time, and plan a route



Work's course:

1. Install the Google Street View application on your smartphone



Google Street View

Google LLC

4.2★

2.38M reviews

1B+

Downloads

E

Everyone

Install

2. Using the prompts, create and edit a circular panorama
3. Add the panorama to Google Maps.
4. View panoramas added by colleagues.
5. You can also publish series of photos taken with your phone's camera to Street View on Google Maps. They are called Photoroutes.

*Report on laboratory work 11*

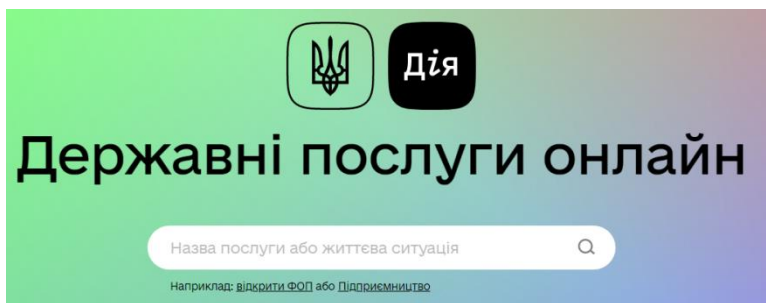
The report on laboratory work 11 contains links to completed tasks.

## Laboratory work 12

# DIGITAL CITIZENSHIP. INTERACTION WITH STATE INSTITUTIONS AND REGISTRIES

**Goal:** To acquire skills of interaction with state online services.

*Task 1 Installation and use of Diya portal services.*



### **Theoretical information**

Diya is the state in a smartphone. The state, in the center of which is each of you.

By installing Diya, you will be able to:

- use digital documents;
- receive government services in a few clicks;
- share copies of digital documents.

Paper and plastic original documents can now be left at home.

To receive digital versions of your documents, simply download Diya and log in. They will appear in the application automatically if the registers contain your data.

Digital documents in action:

- Passport of a citizen of Ukraine in the form of an ID card
- Biometric foreign passport
- Student ID
- Tax payer card
- Driver's license
- Vehicle registration certificate

- Vehicle insurance policy
- Document of a migrant
- Your child's birth certificate
- COVID-19 certificates

The action is convenient, inconspicuous, humane

Work's course:

1. Install the "Diya" application on your smartphone
2. Familiarize yourself with the functions of the application.
3. Create an electronic student card or other electronic document.

### ***Task 2 Obtaining information from the state register of legal entities and individual entrepreneurs***

To obtain information about any enterprise or entrepreneur in Ukraine, it is necessary to make a free request to the unified state register.

Students need to get data from the register by their own surname and by the name of a well-known company.

The screenshot shows the website of the Ministry of Justice of Ukraine, specifically the Unified State Register. The page title is "Єдиний державний реєстр юридичних осіб, фізичних осіб-підприємців та громадських формувань". There are two main sections: "Особливості роботи" (Features) and "Безкоштовний запит" (Free request). The "Безкоштовний запит" section includes a search form with a "Шукати" (Search) button and a "Запит:" label. The search form has a placeholder text "Введіть пошуковий запит".

Figure 4 Unified state register of legal entities, individual entrepreneurs and public organizations

### ***Task 3 Obtaining information from the unified state register of court decisions.***

To obtain information, students should make a request to the unified state register of court decisions <http://www.reyestr.court.gov.ua/>

**Єдиний державний реєстр судових рішень**

Пошук за контекстом  
Введіть фрагмент тексту судового рішення

**Суд та судді**

Регіон суду:

Найменування суду:

Інстанція:

ПІБ судді:

**Судова справа**

Форма судочинства:

Категорія справи:

### ***Task 4 Obtaining information from the state register of property rights to immovable property***

In order to verify the ownership rights to real estate (parent's property can be verified), the student forms a request to the state register of property rights to real estate (the certificate is paid) [https://kap.minjust.gov.ua/services?product\\_id=1&is\\_registry=1&keywords=&usertype=all](https://kap.minjust.gov.ua/services?product_id=1&is_registry=1&keywords=&usertype=all)

**Кабинет електронних сервісів** Вхід

**ГОЛОВНА** **ПРО КАБІНЕТ**

**Перелік послуг Кабінета**

Слова для пошуку:

Послуги реєстрів:

Інші послуги:

Послуга для:

Авторизація:

Результати пошуку:

**Державний реєстр речових прав на нерухоме майно**

Отримати інформаційну довідку

Отримання відомостей про зареєстровані речові права на нерухоме майно за:

- вказану адресу;
- реєстраційним номером об'єкта нерухомості;
- кадастровим номером земельної ділянки;
- ідентифікаційними даними фізичної або юридичної особи.

[Порядок ведення](#)  
[Надання інформації](#)

Figure 5 State register of property rights to immovable property

### ***Task 5 Obtaining information from the public cadastral map***

To obtain information about the owners of the land plot, it is necessary to refer to the public cadastral map <https://map.land.gov.ua/>

Ordering an extract from the State Land Cadastre on the Public Cadastre Map (paid service). Students can get information about their parents' plots of land.

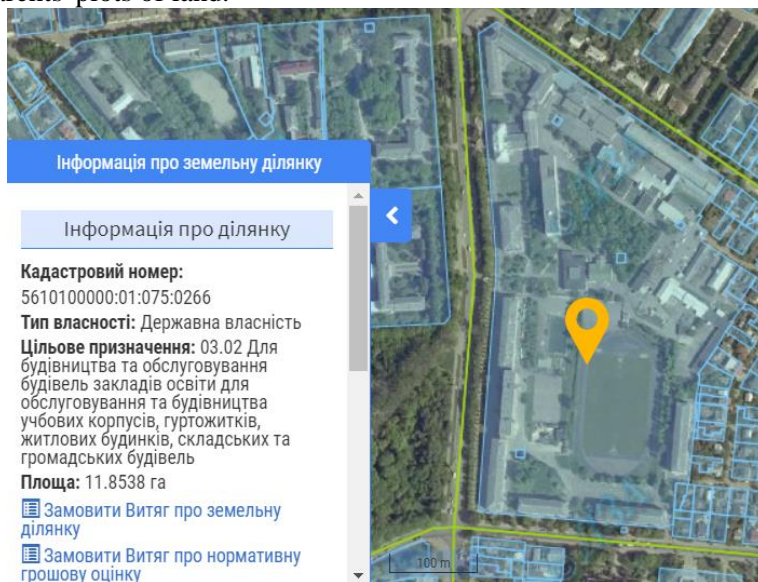


Figure 6 Information about the land plot on which the NUWM buildings are located

### ***Task 6 Verification of business partners***

To check information from state registers, there are specialized services youcontrol and opendatabot <https://youcontrol.com.ua/> or <https://opendatabot.ua/>

YouControl is an analytical system for compliance, market analysis, business intelligence and investigations. The system forms a complete dossier on each Ukrainian company based on open data, tracks changes in registers and visualizes connections between affiliated persons. The unique technology allows you to get up-to-date (at the time of the request) information about the company or entrepreneurs from more than 50 official data sources in a minute. The



monitoring function reports changes daily based on data from official sources.

Students receive detailed information about business partners or competitors.

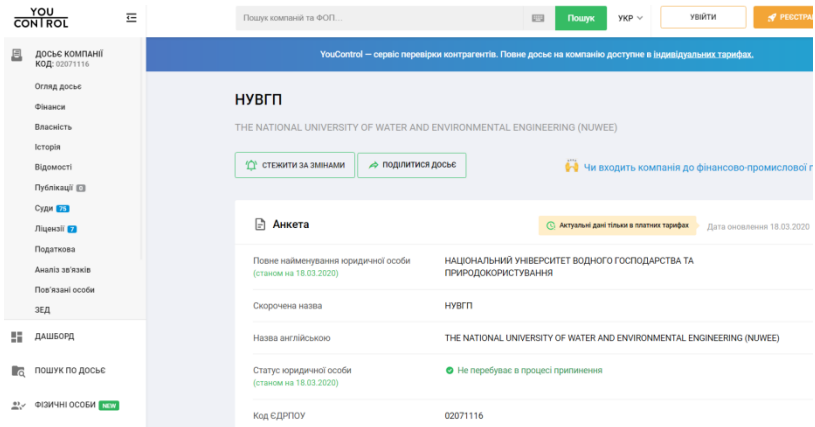


Figure 7 NUWM card on the website youcontrol.com.ua

### ***Task 7 Monitoring of state payments***

The Unified Portal of Public Funds concentrates information on all payments of state and communal property entities. The information comes from the State Treasury Service.

Work's course:

Using the state finance monitoring service <https://spending.gov.ua/>, monitor the latest payments of the NUWM or the state institution of your choice.

**02071116** Національний університет водного господарства та природокористування

Пошук на сторінці

	ПЛАТНИК (код)	ОДЕРЖУВАН (код)	ПРИЗНАЧЕННЯ ПЛАТЕЖУ	ДАТА	СУМА	
<b>ДЖЕРЕЛО ДАНИХ</b>	Нацунівер.водн.господ.та природокор. (02071116)	Рівненська ф.ПАТ КБ Приватбанк (21099787)	2201160;2282;зарплата, лікарні за лютий 2020;згідно відомості.	28.02.2020	2 450 085,27 UAH	
<b>Всі</b>	Нацунівер.водн.господ.та природокор. (02071116)	Рівненська ф.ПАТ КБ Приватбанк (21099787)	2201160;2282;зарплата за 1-шу пол.березня 2020;згідн о відомості.	13.03.2020	2 306 320,29 UAH	
<b>ПЛАТНИК</b>	02071116	Нацунівер.водн.господ.та природокор. (02071116)	Рівненська ф.ПАТ КБ Приватбанк (21099787)	2201160;2282;зарплата, лікарні, винаг за догов. ЦПХ за лютий 2020;згідно відомості.	28.02.2020	1 315 085,77 UAH
<b>ОДЕРЖУВАН</b>	Код за ЄДРПОУ або назвою одержув...	Нацунівер.водн.господ.та природокор. (02071116)	Рівненська ф.ПАТ КБ Приватбанк (21099787)	2201160;2282;зарплата за 1-шу пол.березня 2020;згідн о відомості.	13.03.2020	1 194 660,30 UAH
<b>ПРИЗНАЧЕННЯ</b>						

## Report on laboratory work 12

The report on laboratory work 12 contains a title page, table of contents, screenshots of completed tasks on separate sheets.

## **Laboratory work 13**

# **DIGITAL LAW. DIGITAL SIGNATURE. SECURITY IN THE SOCIAL NETWORKS**

**Goal:** Learn the legal aspects of running a digital business.

### **Theoretical information**

The law “About electronic commerce” obligates usage of the following items while signing electronic contract:

- digital signature in case when digital signature is used by all parties of the deal
- digital signature with one-time identifier (data in digital textual form that is added by the party that accepted the offer and that is sent to the other party of the contract)
- an analogue of a handwritten signature, by agreement of all of the parties with the samples of handwritten signatures
- digital contract - agreement between two or more parties that aims an establishment, changing or termination of the civil rights and has the digital form

The proposal to sign electronic contract (offer) might be done by:

- sending electronic commercial mail directly to the customer’s email address
- placing it on the Internet or other information and communication systems

The signing of an acceptance contract in the e-commerce can be done by:

- sending email to the customer
- filling out the application for acceptance of an offer in electronic form
- performing conclusive actions (e.g. a ‘click’)

According to the law, an offer is not considered as accepted if the party that received it did not make the payment in accordance with the terms and conditions of the offer within the response period.

Making a payment without fulfillment of other conditions or all of the information specified in the offer is not considered as an acceptance and the payment considered as a subject to return. Hence,

the contract is not considered as signed until the customer makes the payment.

**Task 1. Search for a public offer on a web-site of an e-shop and verify compliance of the law.**

<https://zakon.rada.gov.ua/laws/show/675-19>

VERKHOVNA RADA OF UKRAINE  
Legislation of Ukraine

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On Electronic Commerce

Document 675-VIII, valid, current version – Revision on November 19, 2022, on the basis - 2529-IX

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November 19, 2022

Official translation  
Last modification: 07.06.21 07:19:20

**LAW OF UKRAINE**  
**On Electronic Commerce (E-Commerce)**

(The Official Bulletin of the Verkhovna Rada of Ukraine (BVR), 2015, No. 45, Article 410)

(As amended by Laws  
No. 1977-VIII of 23 March 2017, BVR, 2017, No. 20, Article 240  
No. 2704-VIII of 25 April 2019, BVR, 2019, No. 21, Article 81  
No. 114-IX of 19 September 2019, BVR, 2019, No. 45, Article 289  
No. 440-IX of 14 January 2020, BVR, 2020, No. 28, Article 188)

This Law defines the organisational and legal basis for activities in the field of e-commerce in Ukraine, establishes the procedure for electronic transactions with the use of information and telecommunication systems and defines the rights and obligations of the parties to e-commerce relations.

**Work's course:**

Find an electronic contract (public offer) on the website of the online store and check the compliance of the website owners with the requirements of the law "On electronic commerce".

Table 13.1

Obligatory information (Article 7 of the law)	E-shop #1	E-shop #2
Full legal entity name or individual entrepreneur's full name.		

Legal entity registration address or individual entrepreneur registration address.		
Email address or/and e-shop address;		
Identification code for legal entity or individual entrepreneur		
License details in case economic activity is a subject of license.		
Information about whether tax is included into the price of the good or service.		
Information about delivery price.		

### ***Task 2. Digital signature.***

Digital signature is needed for implementation of such functions as: electronic democracy, providing the access to online public services for citizens and businesses, transition to electronic documents management and running a business simplification.

Digital identification is regulated by the law of Ukraine “About electronic trust services”

<https://zakon.rada.gov.ua/laws/show/2155-19#Text>

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Legislation of Ukraine

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Card Files History Links Publications Print Version YKP ENG Search

Про електронні довірчі послуги

Document 2155-VIII, valid, current version – Revision on August 1, 2022, on the basis - 1591-LX

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August 1, 2022

### **Work’s course:**

1. Learn the law “About electronic trust services” and watch the video with advices for setting up digital signature.  
<https://www.youtube.com/watch?v=m-KZJZFZTb0>
2. Create digital signature using privat24 or any other bank.  
<https://www.youtube.com/watch?v=RWVYPSvcpUE>

3. Create a request to get a vaccination certificate and sign it with your digital signature.

<https://diia.gov.ua/>

### ***Task 3. Customs registration of goods in e-commerce.***

According to the customs law of Ukraine, goods that cost more than 150 euros and imported or exported to/from Ukraine are taxed with a duty. Goods that are sent to the address of one recipient in one dispatch from one sender in international postal or express shipments, the total invoice value of which exceeds €150, are subject to customs duty and value added tax. Excise goods are taxed regardless of their value (Article 234 of the Customs Code). According to Article 196 of the Tax Code, the import of goods into the customs territory of Ukraine, the total invoice value of which does not exceed the equivalent of €150, is not subject to VAT taxation.

#### **Work's course:**

Using customs calculator define a delivery price of a car from USA or EU.

<https://calc.customs.gov.ua/>

[https://avtobazar.infocar.ua/rastamozhka\\_uk.html](https://avtobazar.infocar.ua/rastamozhka_uk.html)

<https://rastamozhka.magnit.one/>

Compare fees that are calculated by different calculators.

### ***Task 4. Usage of the password managers to ensure personal security in the social networks***

A strong, unique password is one that contains uppercase letters, lowercase letters, special characters, and a total length of at least 14 characters is the minimum standard, 20 or 30 is even better. Uniqueness means that each account must have its own password. That is, we should have one password on Facebook, and a completely different one on the Gmail.

If we create unique passwords for each account, then there are difficulties with the number of them. You can use the manager that is convenient for you and that you trust. Mac OS users, for example, have a built-in Keychain manager that automatically saves passwords. LastPass is an online password manager for the accounts you create

online. KeePass is an offline manager, where you yourself ensure the security of passwords.

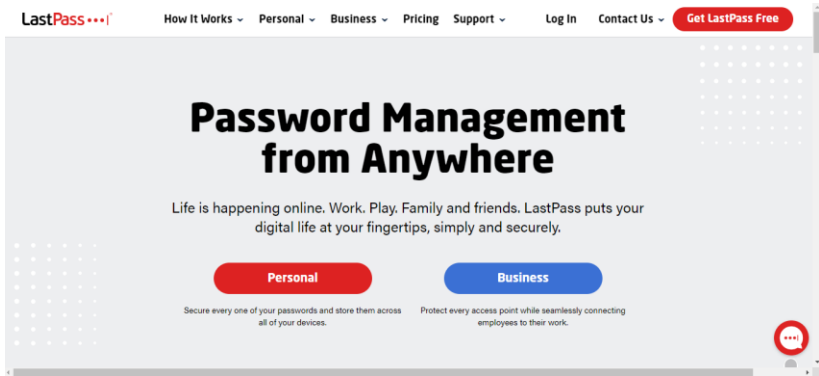
**Work's course:**

Using the password managers create a password.

<https://www.lastpass.com/>

<https://www.dashlane.com/>

<https://www.stickypassword.com/>



*Report on laboratory work 13*

Report must contain titled page, content, print-screen of completed tasks, conclusions.

## **Laboratory work 14**

### **LIFELONG LEARNING. NEW DIGITAL OCCUPATIONS.**

**Goal:** Acquaintance with platforms for online education and new digital.

#### ***Task 1. New digital occupations.***

To get acquainted with new digital occupations, in particular: digital marketer, SMM specialist, Front-end and Back-end developer, QA (Quality Assurance), UI/UX designer, business analyst, cybersecurity engineer, devOps engineer, product manager students need to complete an educational series on the Diya platform.

<https://osvita.diiia.gov.ua/courses/digital-professions>

#### ***Task 2. QA engineer. A software tester***

Students can learn the basics of software testing at the QATestLab training center. To successfully enroll in a free course, a student must pass an entrance test.

<https://training.qatestlab.com/schedule/>

#### ***Task 3. PROMETHEUS.***

On the PROMETHEUS website, you need to familiarize yourself with the list of online courses and register for one of them, according to your choice. <https://prometheus.org.ua/>

#### ***Task 4. COURSERA.***

On the COURSERA website, you need to familiarize yourself with the list of online courses and register for one of them, according to your choice.

#### ***Report on laboratory work 14***

Report contains a Diya platform certificate for completing an educational series on the Diya platform and registering for an online course on the PROMETHEUS or COURSERA platform.



## List of useful links

### Online education platforms:


















































































1. Prometheus <https://prometheus.org.ua/>
2. Coursera <https://www.coursera.org/>
3. Udemy School <https://www.udemy.com/>
4. Google Classroom <https://classroom.google.com/>
5. edX <https://www.edx.org/>
6. Skillshare <https://www.skillshare.com/>
7. LinkedIn Learning <https://www.linkedin.com/learning/>
8. GoToTraining <https://www.goto.com/training>
9. Duolingo <https://www.duolingo.com>

### State institutions and registries:

1. Diia <https://diia.gov.ua/>
2. Unified state register <https://usrreg.minjust.gov.ua/login>
3. Unified state register of court decisions <http://www.reyestr.court.gov.ua/>
4. State register of real property rights [https://kap.minjust.gov.ua/services?product\\_id=1&is\\_registr\\_y=1&keywords=&usertype=all](https://kap.minjust.gov.ua/services?product_id=1&is_registr_y=1&keywords=&usertype=all)
5. Public cadastral map <https://map.land.gov.ua/>
6. Youcontrol <https://youcontrol.com.ua/>
7. Opendatabot <https://opendatabot.ua/>
8. State finance monitoring service <https://spending.gov.ua/>

### Google services:

1. Gmail mail <https://mail.google.com/>
2. Google calendar <https://mail.google.com/>
3. Google Drive <https://drive.google.com/>
4. Google Docs <https://docs.google.com/>
5. Google Sheets <https://docs.google.com/spreadsheets>
6. Google Forms <https://docs.google.com/forms>
7. Google Maps <https://www.google.com.ua/maps/>
8. Google Meet <https://meet.google.com/>
9. Google Photos <https://photos.google.com/>

 Android Auto	 Android OS	 Android TV	 Calendar
 Cardboard	 Cars with Google built-in	 Chrome	 Chrome Enterprise
 Chromebook	 Chromecast	 Connected Home	 Contacts
 Digital Wellbeing	 Docs	 Drive	 Earth
 Exposure Notifications	 Finance	 Forms	 Gboard
 Gmail	 Google Alerts	 Google Arts & Culture	 Google Assistant
 Google Authenticator	 Google Chat	 Google Classroom	 Google Expeditions
 Google Family Link	 Google Fi	 Google Files	 Google Find My Device
 Google Fit	 Google Flights	 Google Fonts	 Google Groups
 Google Health Studies	 Google Home App	 Google Input Tools	 Google Lens
 Google Meet	 Google One	 Google Pay	 Google Photos
 Google Play	 Google Play Books	 Google Play Games	 Google Play Pass
 Google Play Protect	 Google Podcasts	 Google Shopping	 Google Street View
 Google TV	 Google Tasks	 Google Workspace	 Keep
 Maps	 Messages	 News	 PhotoScan
 Pixel	 Pixel Buds	 Pixelbook	 Scholar
 Search	 Sheets	 Sites	 Slides
 Snapseed	 Stadia	 Tilt Brush	 Translate
 Travel	 Voice	 Waze	 Wear OS by Google
 YouTube	 YouTube Kids	 YouTube Music	 YouTube TV
 YouTube VR			

## Website Builders:

1. IONOS <https://www.ionos.com/>
2. Wix <https://www.wix.com/>

3. Strikingly <https://www.strikingly.com/>
4. Ucraft <https://www.ucraft.com/>
5. GoDaddy's <https://www.godaddy.com/>
6. Squarespace <https://www.squarespace.com/>
7. WordPress <https://wordpress.com/>
8. Jimdo <https://www.jimdo.com/>
9. Weebly <https://www.weebly.com/>
10. Carrd <https://carrd.co/>
11. Webs <https://www.webs.com/>
12. iPage <https://www.ipage.com/>
13. Network Solutions <https://www.networksolutions.com/>
14. Mobirise <https://mobirise.com/>

### **WEB and SMM – analytics:**

1. Google Analytics <https://analytics.google.com/>
2. SimilarWeb <https://www.similarweb.com/>
3. Popsters <https://popsters.com/>
4. Buffer Analyze <https://buffer.com/>
5. Sprout Social <https://sproutsocial.com/>
6. Hootsuite <https://www.hootsuite.com/>
7. Zoho Social <https://www.zoho.com/social/>
8. Sendible <https://www.sendible.com/>
9. Keyhole <https://keyhole.co/>
10. Cyfe <https://www.cyfe.com/social-media-dashboard/>
11. Quintly <https://www.quintly.com/>

### **Creating interactive digital content:**

AppsGeyser <https://appsgeyser.com>

### **Banners:**

1. Canva <https://www.canva.com/create/banners/>
2. Visme <https://www.visme.co/banner-maker/>
3. Adobe Express  
<https://www.adobe.com/express/create/banner>
4. Fotor <https://banner.fotor.com/>
5. BeFunky <https://www.befunky.com/features/banner-maker/>
6. EDIT <https://edit.org/banners>

7. Creatopy <https://www.creatopy.com/create/banner/>

**Word cloud:**

1. WordArt <https://wordart.com/>
2. Wordclouds <https://www.wordclouds.com/>
3. MonkeyLearn <https://monkeylearn.com/word-cloud/>
4. Mentimeter <https://www.mentimeter.com/features/word-cloud>
5. FreeWordCloudGenerator  
<https://www.freewordcloudgenerator.com/>
6. WordItOut <https://worditout.com/word-cloud/create>
7. Word Cloud <https://wordcloud.online/>