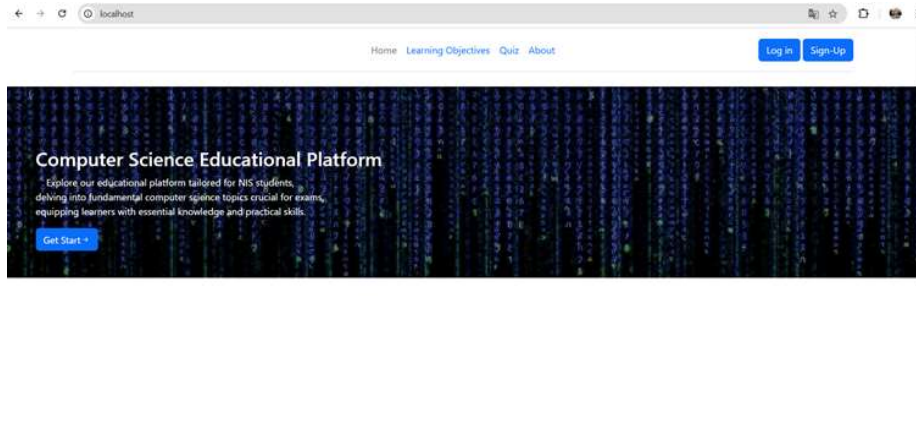


User manual

To start using CS educational platform, first, users should sign in or sign up to start personal education and practices on the website. To register we should click the button labeled as “Sign-up” (Picture 26).

Picture 26



After clicking, the server sends user to registration page, where user should input own personal data, which consists of username, email address, passwords, and agreement with privacy policy. The important note, password should be complex (should contain more than 8 symbols, at least 1 special symbol, uppercase letter, number). If a user already has an account on server, user can click to link “Log in” (Picture 27), and, user go to authorization ^[1] page. User also can check correctness of own password with a help of check button “Show password” (Picture 27).

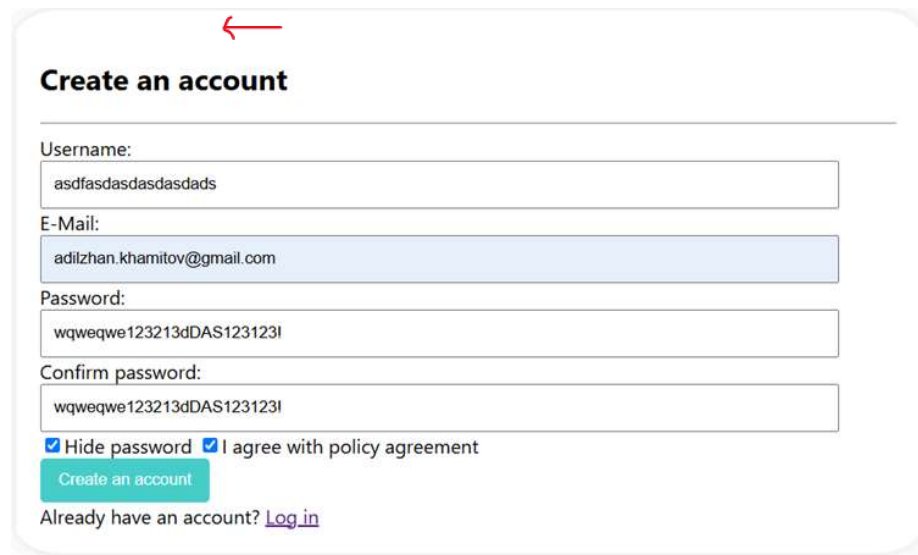
Picture 27

A screenshot of a web form titled 'Create an account'. The form contains several input fields: 'Username' (with a placeholder 'Username'), 'E-Mail' (with a placeholder 'example@outlook.com'), 'Password' (with a placeholder '*****'), and 'Confirm password' (with a placeholder '*****'). Below these fields are two checkboxes: 'Show password' and 'I agree with policy agreement'. A green button labeled 'Create an account' is positioned below the checkboxes. At the bottom of the form, there is a link that says 'Already have an account? Log in'.

After filling all fields user should to click the button labeled as “Create an account” (Picture 28).

Picture 28





Create an account

Username:
asdfsasdasdasdads

E-Mail:
adilzhan.khamitov@gmail.com

Password:
wqweqwe123213dDAS123123!

Confirm password:
wqweqwe123213dDAS123123!

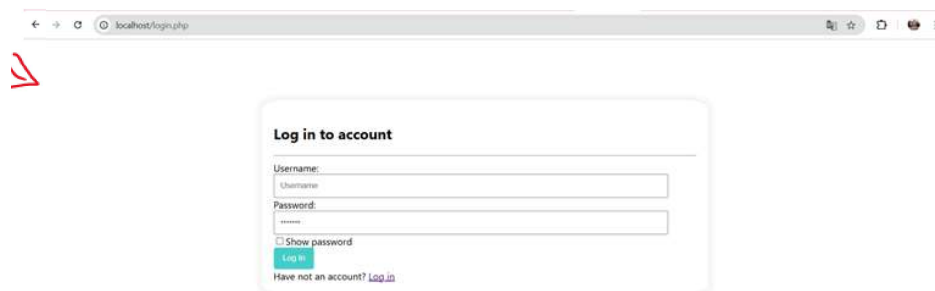
☒ Hide password ☒ I agree with policy agreement

Create an account

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

After clicking, the user can log in to the system using personal data which inputted on previous form. Or if a user already has an account, user can just type personal data to log in. After filling fields, user should click the button labeled as “Log in” (*Picture 29*).

Picture 29



Log in to account

Username:
Username

Password:
password

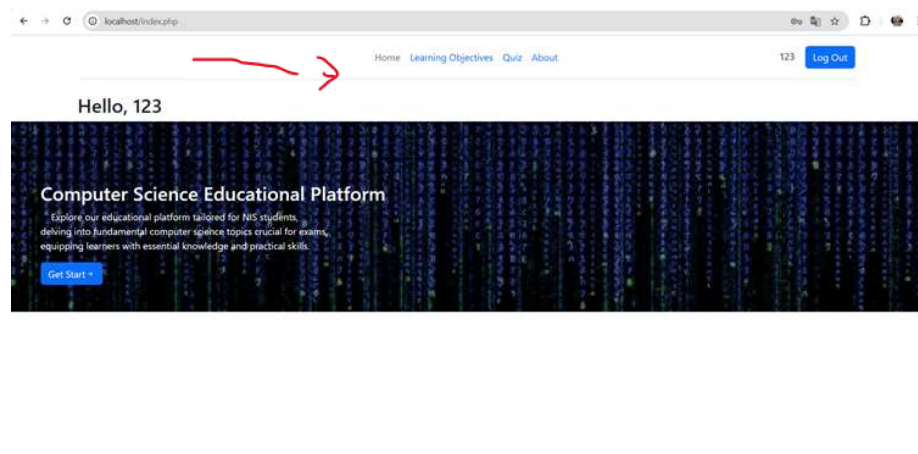
☐ Show password

Log in

Have not an account? [Log in](#)

It is the start page, there are mission, and objectives CS Educational Platform. There is button “Get Start” (*Picture 30*), after clicking to this button, or scrolling down, there appear panels with topics from Computer Science program of the NIS.

Picture 30



Clicking to buttons “Read More” (Picture 31), user can learn this topic deeply.

Picture 31

Topics

Binary Search

Binary Search – Recursion Tree

Green is marked as mid where division of array takes place

Read More

Quick Sort

Read More

2D arrays

Read More

This is a topic page, on this page there are a variety of topics from databases. There are detailed definitions of the topic, and some small practice. (Picture 32)

Picture 32

Home Learning Objectives Quiz About

123 Log Out

Binary Search

Binary search divides the array in half and determines the part of the array that contains the key value. To perform a binary search, the array must be sorted.

```
def binary_search(lst: list, target: int) -> bool:
    start = 0
    end = len(lst) - 1
    while start <= end:
        mid = (start + end) // 2
        if lst[mid] == target:
            return True
        elif lst[mid] > target:
            end = mid - 1
        else:
            start = mid + 1
    return False
```

Try it yourself

We have the sorted one-dimensional array:
1 4 6 12 32 45 95 126 145 234 235 342 422 432 509 536 541 683

Enter the target integer: **FIND**

To log out from user account, user just should press the button “Log Out” (Picture 33), and the system perform process of log out from account.

Picture 33

Common error guide



Table 6. Common error

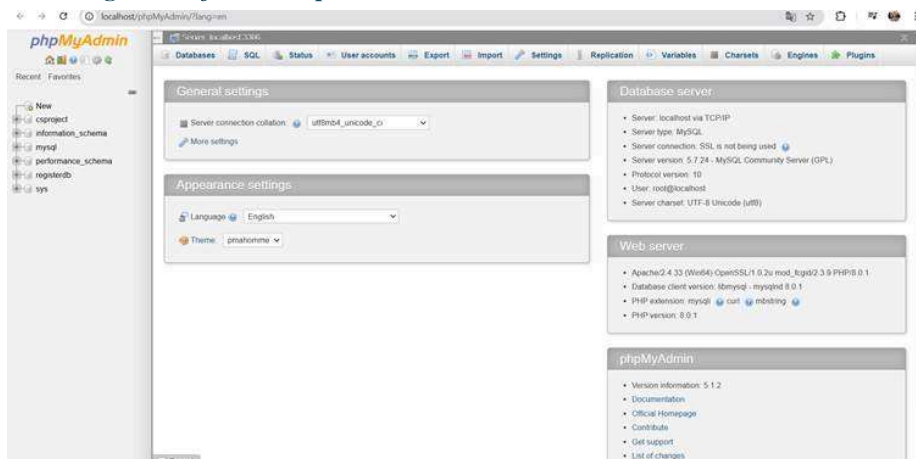
Error	Cause	Solution
The set of all topics on main page blurred	On the website, there are processes to prevent viewing data from unauthorized users. So, if the user doesn't authorize in the system, viewing topics is unavailable	Users should register and log in, after this user can view all topics on the website.
Password should... (contain at least 1 special symbol, at least 1 number, etc.)	Users' passwords should be complex to prevent stealing accounts and personal data. To achieve this purpose, users should use complex password.	Users should create more complex password.

Backup routine

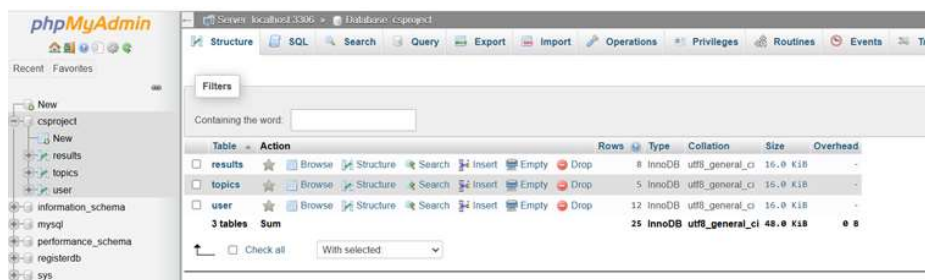
The data backup process will commence once the system is fully operational. Backups will occur quarterly, at the end of each quarter, during periods of minimal user activity to eliminate the risk of data loss.

Since the data primarily consists of text and small images, it is compact enough to be stored on free cloud platforms like Google Drive or Yandex Disk, both of which offer reliable and secure storage options.

Algorithm for backup



1. Turn on local server
2. Go to localhost/phpMyAdmin/
3. Select "csproject" database



4. Press to “Export”

Exporting tables from "csproject" database

Export method:

☒ Quick - display only the minimal options

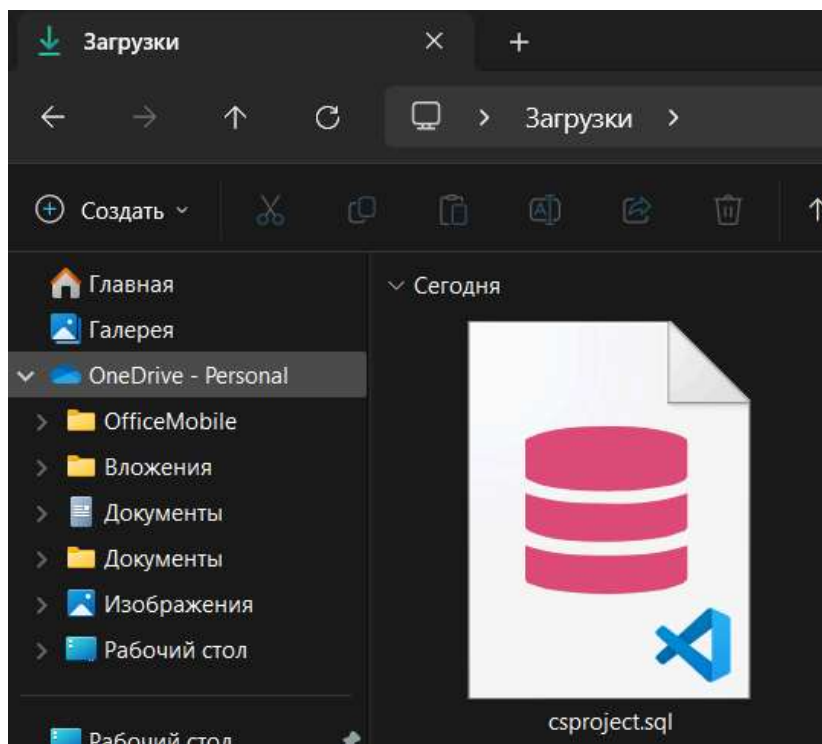
☐ Custom - display all possible options

Format:

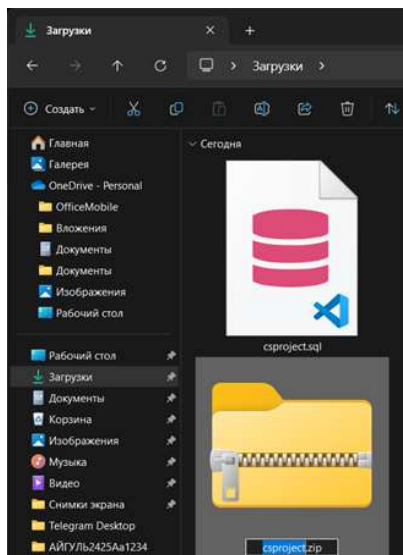
SQL

Go

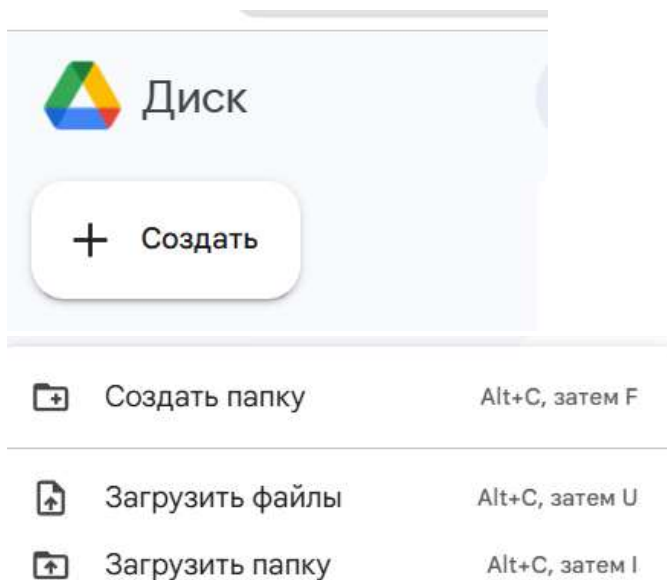
5. Press to button “Go”



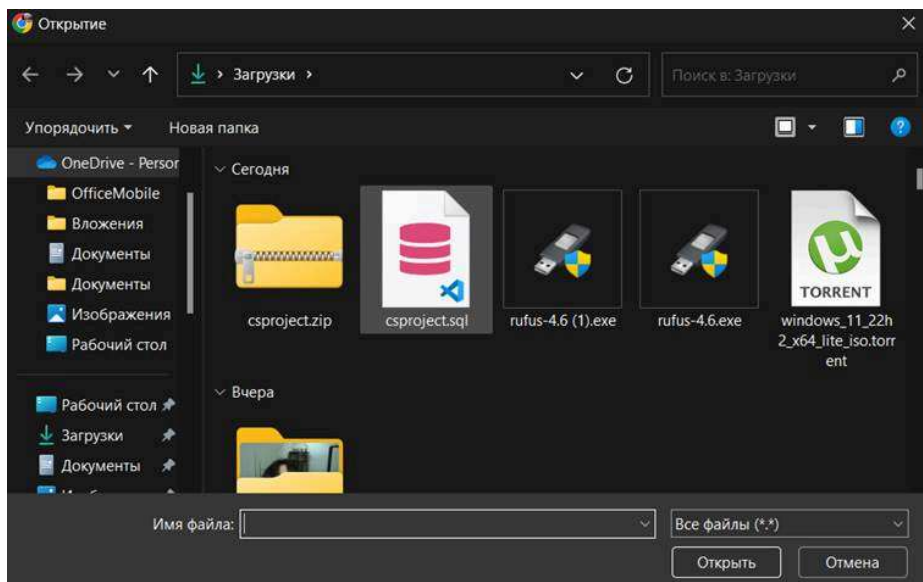
6. After downloading, press with right mouse button, and archive this file



7. After this log in to the Google Drive, and upload this file



8. Press this button, and click Загрузить файлы(Upload files)



9. Then choose archived sql file, and open.



10. File has been uploaded successfully

Glossary

Table 7. Glossary

Title	Description
Authorization	is the function of specifying rights/privileges for accessing resources, which is related to general information security and computer security
Sign-up	Sign up is a phrase referring to the creation of an online account using an e-mail address or a username and password.
Backup	is the process of creating a copy of data to protect it against loss, corruption, or damage. In simple terms, it's like having a spare copy of your important files stored separately, so you can restore them if the original is lost or compromised.
Archive file	is a single file that contains multiple files and folders bundled together, often in a compressed format. It is used for storing, organizing, or transferring data efficiently. Common examples include ZIP, RAR, and TAR files. Archives are typically used to save space or make it easier to move large amounts of data.

^[1] is the function of specifying rights/privileges for accessing resources, which is related to general information security and computer security