Çankaya University

Faculty of Engineering

Computer Engineering Department

Project Report

CENG – 408

Innovative System Design and Development II

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ASAP (Academic and Student Assessment Platform)

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İçindekiler

Abstract

This document, project plan, literature review, SRS (software Requirements Specification) and SDD (Software design document), including "Academic and student assessment Platform" is intended to provide information about our project.

Keywords:

Desktop application, Python, Microsoft Excel-Word, Database, Project Plan, Literature Review, Software Requirements Specification, Software Design Document

Introduction

ASAP is a project that makes it easy to collect and compile data, describing its userswith various forms of reporting. We added various formulas and graphs to the excel reports of our project to speed up MÜDEK processes. In this project, we aim to learn more about excel files and to learn phyton better.

1.Introduction

Academicians should collect the data of the courses they teach at the end of each year and report them to MÜDEK. But in the academic field, collecting the data of students and courses and putting them in the desired format is a laborious and time-consuming task. It takes time for someone to do this and it is very difficult to verify the accuracy of the work done. Teaching it to a computer takes time and patience. In today's assessment exams, the data shows all the questions that students answered incorrectly or correctly, the achievements of these questions and the net score of the student. Accordingly, the report cards of the students appear. By looking at these report cards, the student knows where to study and the teacher knows which subject to retell. The purpose of this research is to collect student and course data accurately, effectively and quickly, process them and make them available to MÜDEK.

Abstract

In our department examinations, quizzes, assignments, and tools to help you measure the results of scholars left on the paper, there's extremely important for this data, connection, and preceptors of having to manually calculate the Collection section, taking into account the asked thing was reached to test whether the data and the computation of the earnings determined the chance of success is getting an extremely large problem. Considering this situation, it's aimed to work successfully and in the asked direction of this design by using Excel, and C#, and it's aimed to reduce the difficulties endured by our department preceptors. It's aimed to reuse the data with Excel, calculate the asked results with C#, produce the asked reports with Excel, keep these data reliably with Google Drive, and use these tools to make the system work as a whole. In this report, we examine the significance of the design to be created, the sense of the tools we will use, the working system, and affiliated studies.

Keywords: Desktop application, C#, Microsoft Excel-Word, Database, Google Drive

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Advantage & Disadvantage

All work for which students are graded during the learning period must be preserved. For this, it will be safer and easier to back up school data with the transition to digital. The success rate

of the course will be determined by displaying the correct - incorrect ratios of the students and questions of the application. . As a disadvantage, if we need to show an example, it is local and can be used as a single user. The application can be developed.

Tools

C#

Microsoft's C# programming language is extremely versatile. It is extensively used for application development and has support for object-oriented programming, a strong type system, and automatic memory management. Because of the.NET Core runtime, C# is platform-independent, allowing applications to operate on a variety of operating systems. It includes a broad standard library that makes typical programming jobs easier. Microsoft's Visual Studio IDE, which includes capabilities like code autocompletion and debugging, provides strong tools support for developers. C# has a big and active developer community and is widely used in a variety of sectors. Its adaptability and strong features make it ideal for creating desktop software, web applications, and games. C#'s strong type system detects problems at compile time, improving code stability. The automatic memory management of the language relieves developers of laborious memory management responsibilities, increasing productivity. C# is still evolving, with new features and enhancements added in successive editions, ensuring its relevance in current software development. Overall, C# is a robust language with widespread industrial use, making it a valuable tool for developing a variety of applications.

Excel

Microsoft Excel is a spreadsheet program available for both Windows and Mac OS X platforms, created by the Microsoft company for the purpose of creating spreadsheets. We chose excel to use in-app input output data. We planned to export the data to excel application for more convenient and legible listing. Student and course reports will be displayed with templates on excel.

Google Drive

Google Drive is Google's cloud-based file storage and syncing service. It enables users to save, share, and access files and folders from any device that has an internet connection. Google Drive offers a large amount of free storage space as well as additional storage plans for

consumers that need more capacity. One of Google Drive's primary benefits is its seamless connection with other Google services such as Google Docs, Sheets, and Slides. Users can use Google Drive to create, edit, and collaborate on documents, spreadsheets, and presentations. The platform allows for real-time collaboration, allowing numerous users to work on the same file at the same time. Google Drive also has robust file-sharing capabilities. With adjustable sharing permissions, users can quickly share files and folders with specific persons or make them available to a larger audience. Furthermore, Google Drive allows you to share files via links or embed them on websites, making it easy to collaborate and share information with others. Google Drive's strong search functionality is another standout feature. Users can use keywords, file kinds, and other characteristics to rapidly find files and folders. The search features of Google Drive extend to the content within files, including text within documents, making it simple to retrieve specific information. Google Drive is available on a variety of platforms, including web browsers, desktop programs, and mobile applications. This ensures that users' files can be accessed and can be manipulated through different devices, which provides flexibility.

Conclusion

The Academic and Student Assessment Platform (ASAP) is designed to provide easier and more regular outputs of the data requested by the MUDEK. First of all, after the admins enter the lesson into the system, teachers can generate Excel templates from these lesson files to input their lesson information in these Excel files without changing anything else. After loading the now-filled, Excel file to the system, teachers can reuse the Excel file to generate a new version of this Excel file which now includes the new DC tables within.

SOFTWARE REQUIREMENTS SPECIFICATION

1.Introduction

1.1 Purpose of the Document

This document contains all the information about the Academic and Student Assessment Platform. This document also provides the mathematical calculations of the datas, data reletionship between files, example & sample excel files to be developed and generated from the platform.

1.2 SCOPE OF THE PROJECT

With this project we aim to reduce time and effort needed to collect course data, compile & sort acquired data and represent it in desired format(s). This platform will be able to generate desired excel files, which will be filled by the teachers. Then these Excel files will enter a a report generation function which will calculate the desired data, andadd it to the excel file. The first generated excels, along with the excels generated by the admins, will be available to store in Google Drive.

1.3 GLOSSARY

TERM	DEFINITION
Desktop Application	A software application developed particularly to run on desktop devices rather than smartphones or tablets , such as computers.
Microsoft-Excel	Spreadsheet program available for both Windows and Mac OS X platforms.
C#	General-purpose high-level programming language supporting multiple paradigms.
Database	Environment where data is stored on a local computer or server.

Microsoft-Word	Word processing program+
Software Requirement Specification (SRS)	A document describing what the software will do and how it can be anticipated to perform.
User interface	Users interact with a computer program or system.
Google Drive	Google Drive is a file storage and synchronization service developed by Google.

1.4 Overview of the Document

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product that includes its features, performance, requirements plans.

2. OVERALL DESCRIPTION

2.1 Product Perspective

The Academic and Student Assessment Platform provides a simple mechanism for teachers to keep students' data more securely and make it more reliable. The following are the main features that are included in The Academic and Student Assessment Platform

User account: The platform allows the teacher to use their given accounts by the system admin and provide features of updating and viewing profiles.

Excel Template: After you enter the desired data into the program, the program gives you an excel template and wants you to fill it out.

Database: All the user information, lesson information and generated excel information will be stored inside A google drive account, which belongs to the ASAP directly.

Uploading excel to system: In order for the data to be recorded in specific Google Drive file, the Excel file must be uploaded to the system.

2.1.1 Development Methodology

We thought about developing the project using the waterfall methodology. Waterfall methodology is a linear, sequential project management process. There are several basic principles of the waterfall method. The two principles that are the reason for choosing this methodology are as follows:

Each stage must be completed before the other begins.

The project requirements should be determined with the whole before the project starts to be developed.

These two reasons, which attach importance to the planned, error-free and disciplined development of the project, were a big factor in our selection.

2.2 User Characteristics

2.2.1 User

- User must be an active teacher of Cankaya University.
- User uses the string "user" and the given password to enter the system.
- User must have internet and computer and know how to use it.

2.2.2 Admin

- Admin must be an administrative employee of Cankaya University.
- Admin must have a Computer.
- Admin must have an Internet.
- Admin uses the string "admin" and the given password to enter the system.

3.Requirements Specification

3.1 External Interface Requirements

3.1.1 User Interfaces

The user interface of the platform will be easy to use and understandable. Since it is designed for teachers and the general language of instruction at Çankaya University is English, the interface language is English. In addition, the user is expected to know how to use computers and the internet and to know how to use Microsoft Office Excel.

3.1.2 Hardware Interfaces

This application works on all devices based on Windows and Linux.

3.1.3 Software Interfaces

In our project,

We use Microsoft-Excel to collect data, perform necessary operations and obtain meaningful data .

We use C# to use the meaningful data obtained, process it and create our desktop application. We use Database to store the obtained data.

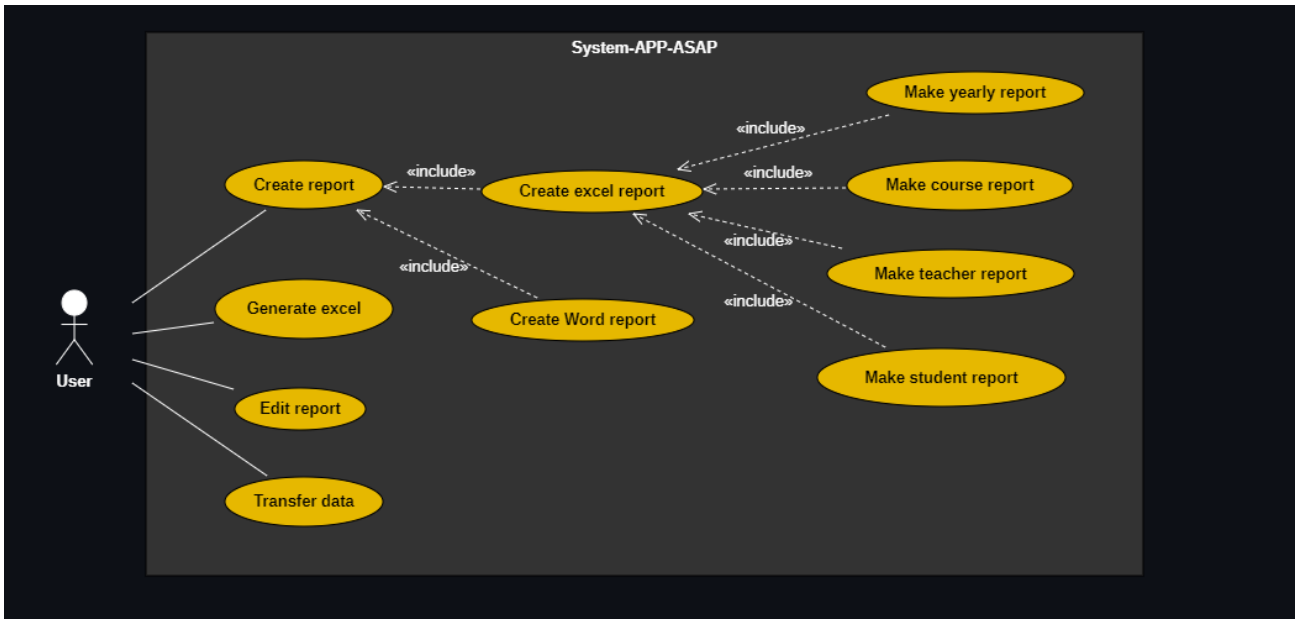
Finally, we use Microsoft-Excel to generate the desired result report, and to generate the desired excel template as well.

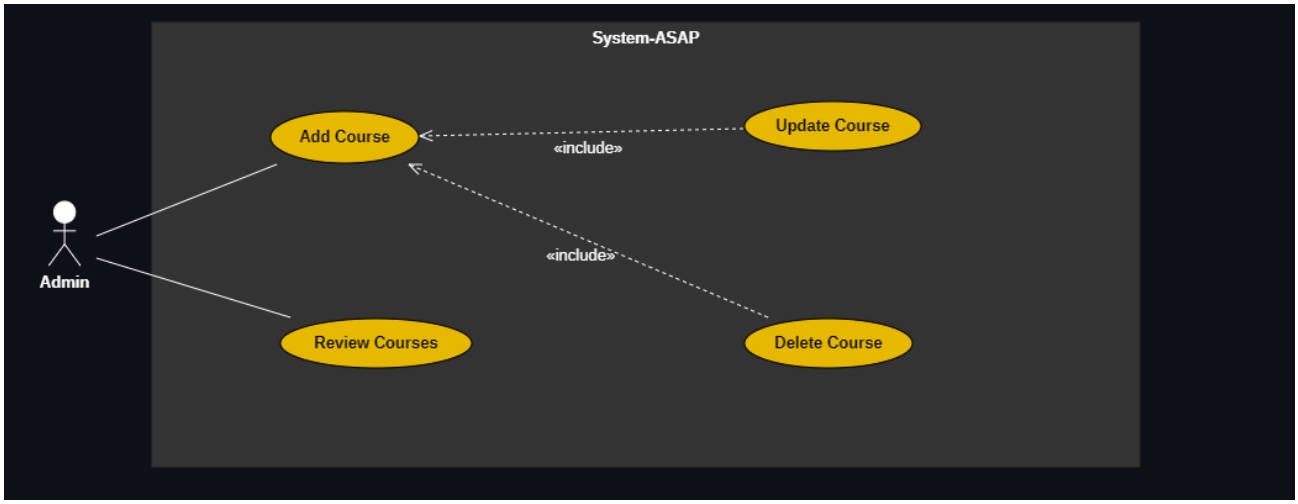
3.1.4 Comminication Interfaces

System will have a database and it will communicate using phyton.

3.2 Functional Requirements

3.2.1 Use Case Diagrams





3.2.2 Use Cases

Use Case Name	Login
Actor	User
Description	If the user enters the login username and password correctly, system will allow to user enter the platform.
Precondition	Username and password are stable, which are, "user" for a User, and "admin" for an Admin.
Scenario	User enters her/his username and password in the login screen.
	When the user enters her/his username and password correctly, system will authenticate it from the Excel file stored inside the specific Google Drive file.
	When the user gets authenticated correctly system will allow him/her to enter the platform.
Postconditions	User will access the platform.
Exceptions	If the user enters her/his username and password incorrect, system will trigger login warning and re allow to enter her/his

	username and password.

Use Case Name	Generate Excel
Actor	User
Description	User inputs the lesson information such as Midterm number, Homework number etc, while the Student information and DC number will be taken from the already generated lesson Excel, which will be accessed through Google Drive.
Precondition	User must be authorized.
Scenario	User presses the needed button
	User inputs enter the necessary data in empty lines in the User Interface.
Postconditions	An excel template will be generated for data input.
Exceptions	If there is an error in the entered data, user receives an error.

Use Case Name	Add Course
Actor	System, Admin
Description	This use case allows the admin to create course templates with their respective excel file.
Precondition	Admin must be logged on.
Scenario	Admin will open the related page to add a course.
	Admin will select/ enter the related requirements. (Student number, dç-pç table info)
	Based on the admin’s inputs system will

	inform the user to fill in the required data to generate an Excel file.
Postconditions	Admin will create a course structure to be filled by another user (s). An Excel file will be created within chosen requirements.

Use Case Name	Transfer Data
Actor	User
Description	This use case allows user and admin to load their excel files to the respective Google Drive files.
Precondition	User must be logged on. User also needs an acceptable Excel file to load.
Scenario	User will press the download button.
	User will select which course to download
	User will be able to download his/her Excel file to the Google Drive System
Postconditions	If user tries loading something else, system will fail and will let the user try again.

Use Case Name	Create Excel Report
Actor	User
Description	When user wants to create excel report, system will generate excel report.
Precondition	User needs a fully filled Excel template, which will be generated from GenerateExcel function.
Scenario	User will open a list to access information about Excel files in Google Drive.
	User will select the Excel data from that list.
	System will do the necessary calculations and

	will generate an Excel Report.
Postconditions	System will fail to generate an Excel report if, the excel file is not in generated version or if it is not full.

3.3 Performance Requirement

A computer based on Windows, Linux or IOS operating system.

3.4 Software System Attributes

3.4.1 Portability and Security

Since the system works on a locally, it will be accessible and secure only to teachers and database administrators from within the school. However, since the system is designed for Çankaya University and as a student grading system, it is not expected to be used for a different purpose.

3.4.2 Performance

Since it is a C# based software, it will run smoothly on most Operating Systems. The system will basically process most of the data through the Google Drive Database, it will not need much ram, but it will require an Internet Connection.

3.4.3 Usabilitiy

With the ASAP(Academic-and-Student-Assessment-Platform) project, our teachers will be able to collect, compile, sort lesson data and perform mathematical calculations more easily. In addition, authorized persons will be able to read and edit this provided data and use its data, tables and graphs for use when necessary.

3.4.4 Adaptability

Since ASAP (Academic-and-Student-Assessment-Platform) uses C#, it needs updates to apply new changes and bug fixes. It is only necessary to define and set the database to be used to perform the necessary operations.

3.4.5 Scalability

There is no scalability requirement.

3.5 Safety Requirement

The application was designed to be used by authorized personnel and teachers, on a computer only. It is not safe for the user if it is not entered from another computer or if it is entered by two different users from the same computer. The user can be blocked, and you can request a reset request from student affairs. The system must also be downloaded to the system to use.

SOFTWARE DESIGN DOCUMENT

1.Introduction

1.1 Purpose of Project

The purpose of this documentation is to explain ASAP (Academic and Student Assessment Platform) in detail with diagrams. In this document, there are excel files (as a link), User Interface (UI), activity diagrams and sequence diagrams. In short, the purpose of this document is to inform the reader about the system.

1.2 Scope of Project

With this project we aim to reduce time and effort needed to collect course data, compile & sort acquired data and represent it in desired format(s). This platform will be able to generate desired excel files, which will be filled by the teachers. Then these Excel files will enter a a report generation function which will calculate the desired data, andadd it to the excel file. The first generated excels, along with the excels generated by the admins, will be available to store in Google Drive.

1.3 Glossary

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	Windows and Mac OS X platforms.
C#	General-purpose high-level programming language supporting multiple paradigms.
Database	environment where data is stored on a local computer or server.
Microsoft-Word	Word processing program+
Software Design Document (SDD)	Software Design Document,is a written outline of the development of a course or a description of a software product.
User interface	Users interact with a computer program or system.
Google Drive	Google Drive is a file storage and synchronization service developed by Google.

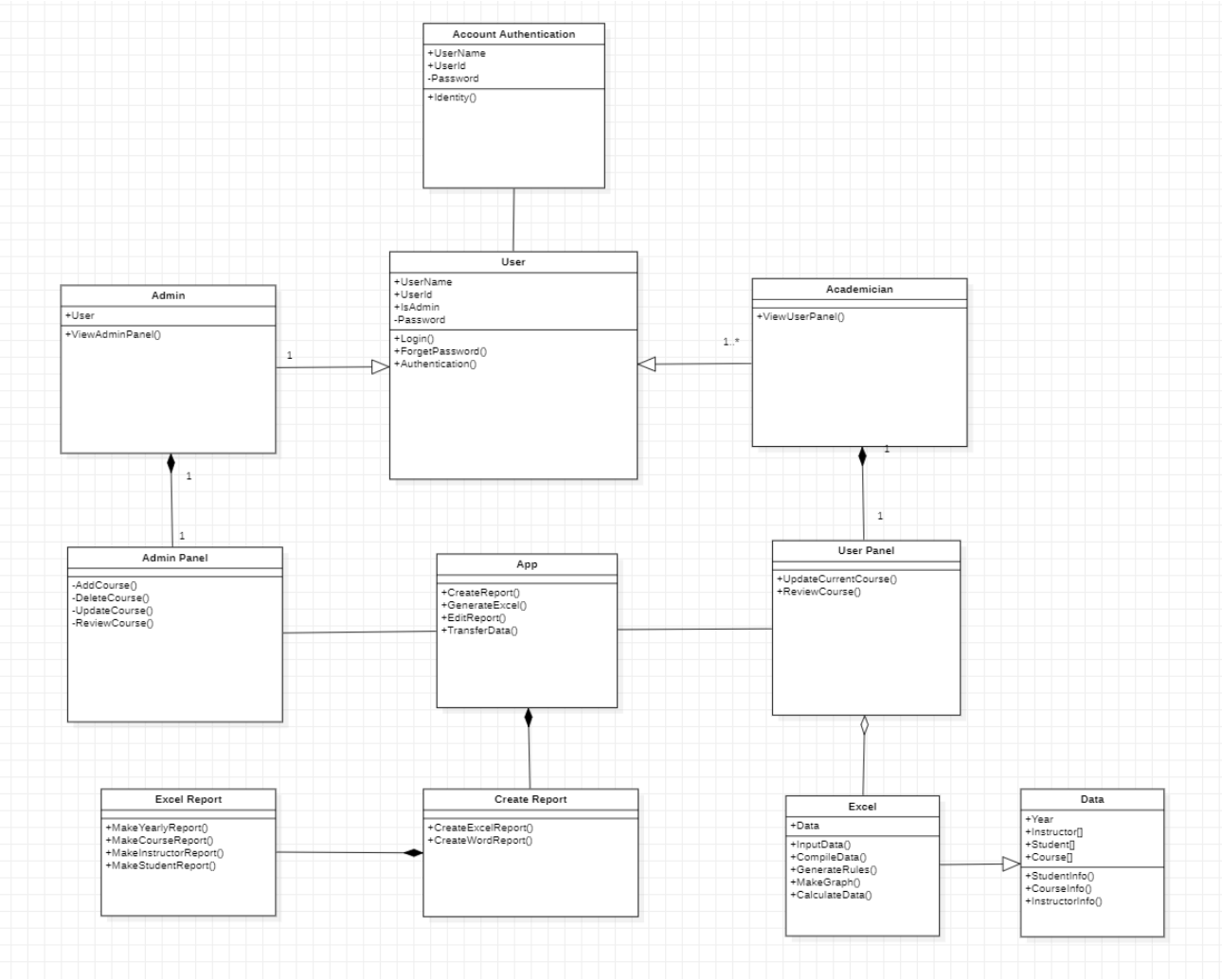
2. System Overview

While designing our interfaces, we aimed to be generally understandable and user-friendly. When we try to access our desktop application, the application's login page is displayed first. After logging in to the application, the panel page opens according to the user's competence. There is an admin and teacher panel. They can provide access to screens such as reports to be created, course contents, acquisition information entries, and student information.

The required gain results can be obtained by entering the required inputs from the Excel application, and then the data can be transferred to the application and reports can be created. The database is used in the transfer and storage of this data.

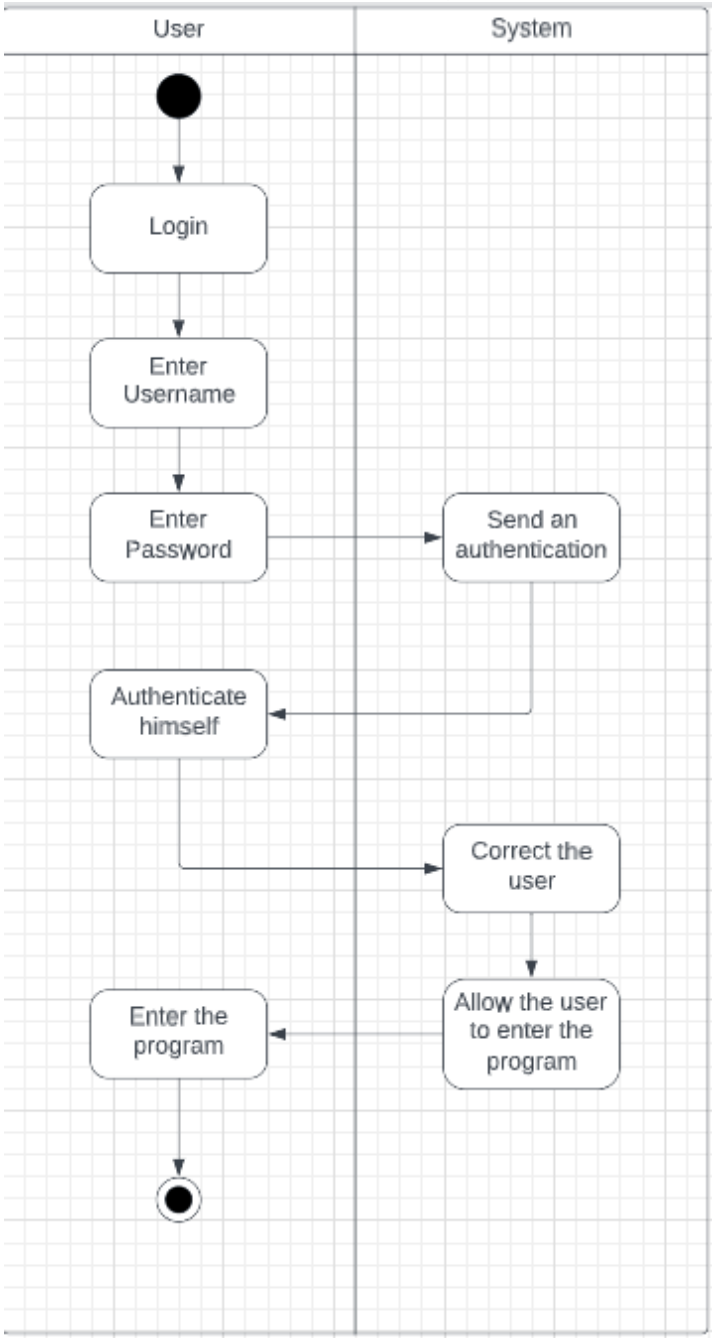
3. Design Approach

3.1 Class Diagram

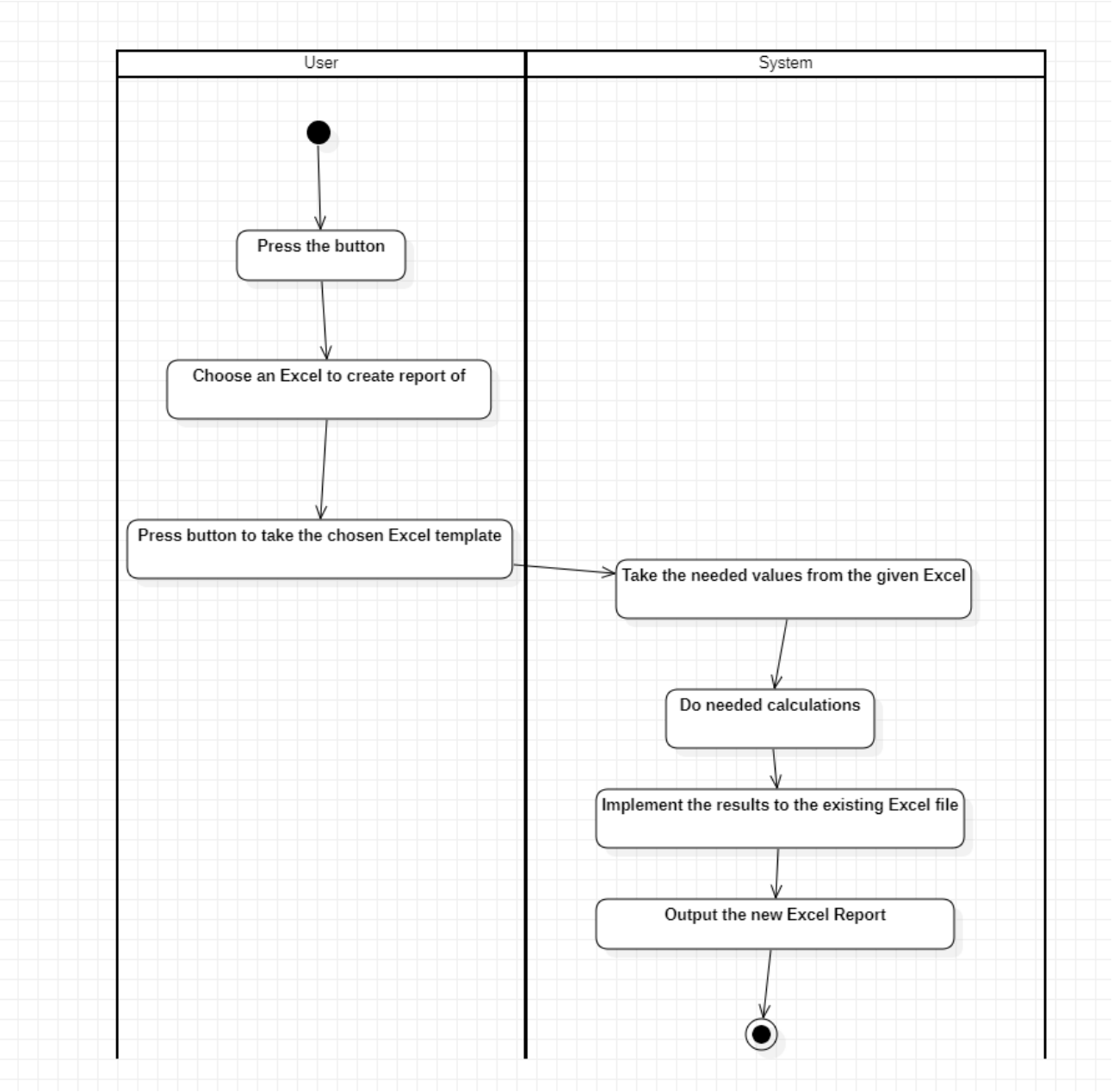

Account Authentication
+UserName
+UserId
-Password
+Identity()
User
+UserName
+UserId
+IsAdmin
-Password
+Login()
+ForgetPassword()
+Authentication()
Admin
+User
+ViewAdminPanel()
Academician
+ViewUserPanel()
1
1..*
1
1
1
1
Admin Panel
-AddCourse()
-DeleteCourse()
-UpdateCourse()
-ReviewCourse()
App
+CreateReport()
+GenerateExcel()
+EditReport()
+TransferData()
User Panel
+UpdateCurrentCourse()
+ReviewCourse()
Excel Report
+MakeYearlyReport()
+MakeCourseReport()
+MakeInstructorReport()
+MakeStudentReport()
Create Report
+CreateExcelReport()
+CreateWordReport()
Excel
+Data
+InputData()
+CompileData()
+GenerateRules()
+MakeGraph()
+CalculateData()
Data
+Year
+Instructor[]
+Student[]
+Course[]
+StudentInfo()
+CourseInfo()
+InstructorInfo()

3.2 Activity Diagram

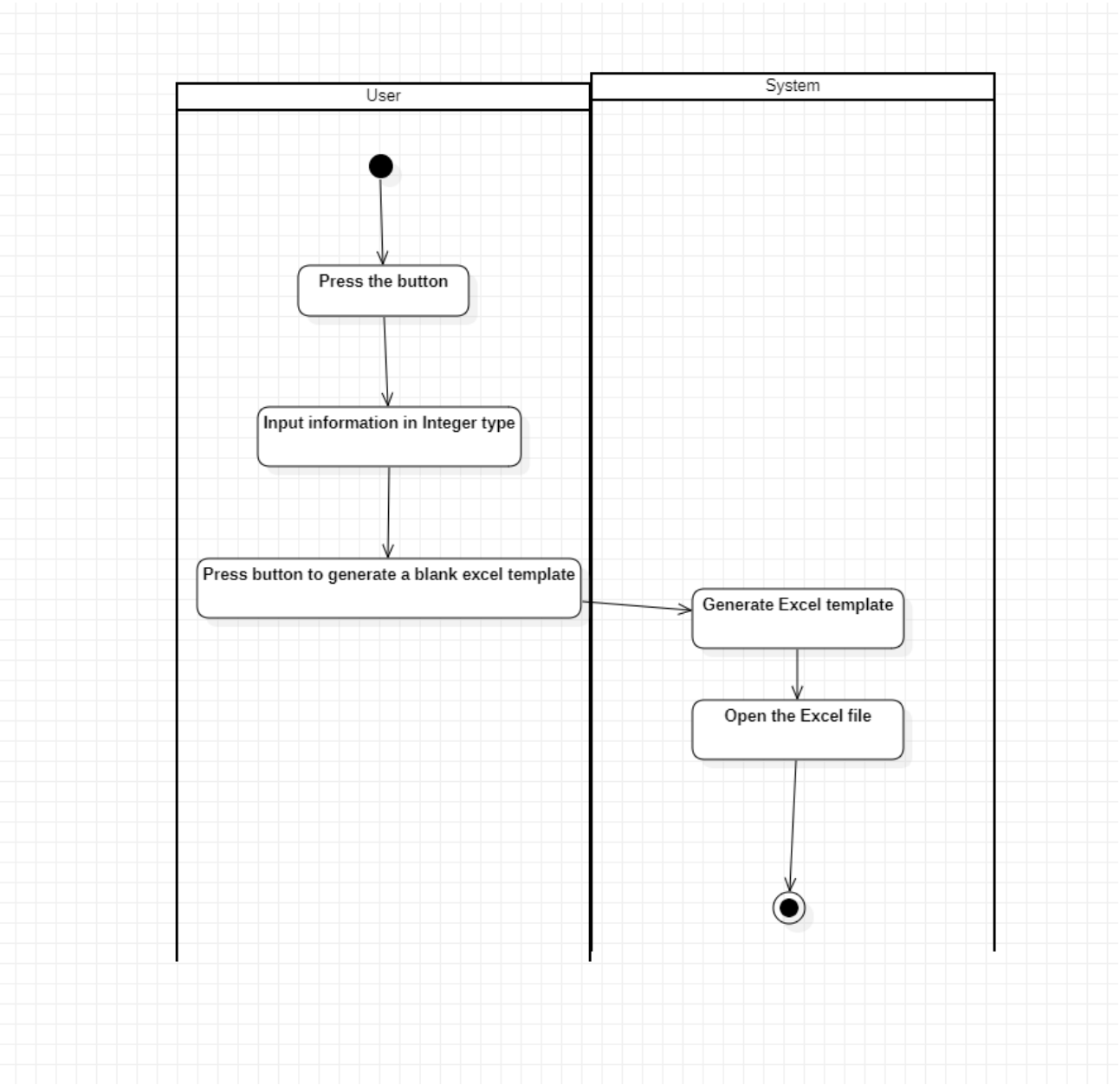
3.2.1 Login



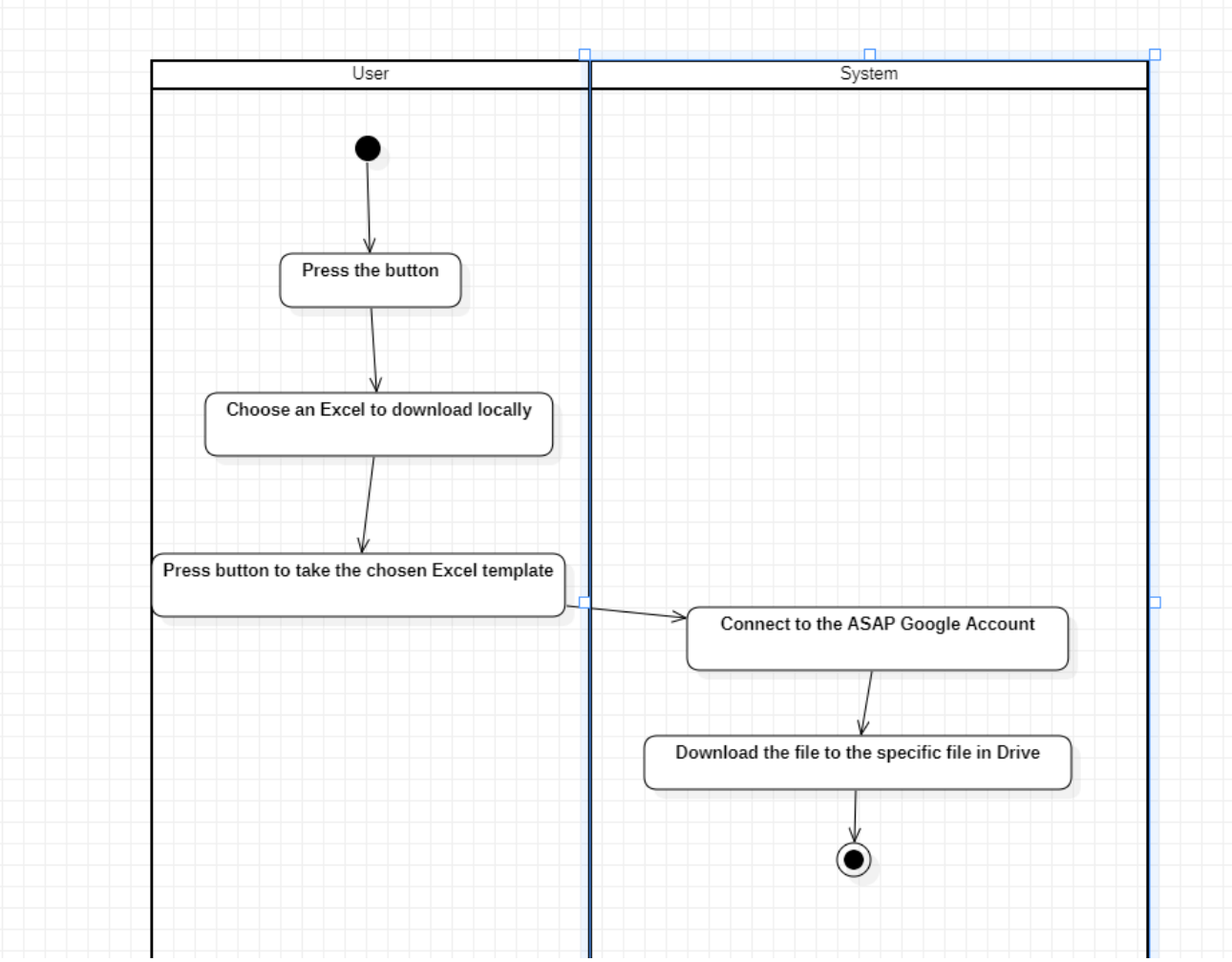
3.2.2 CreateReport



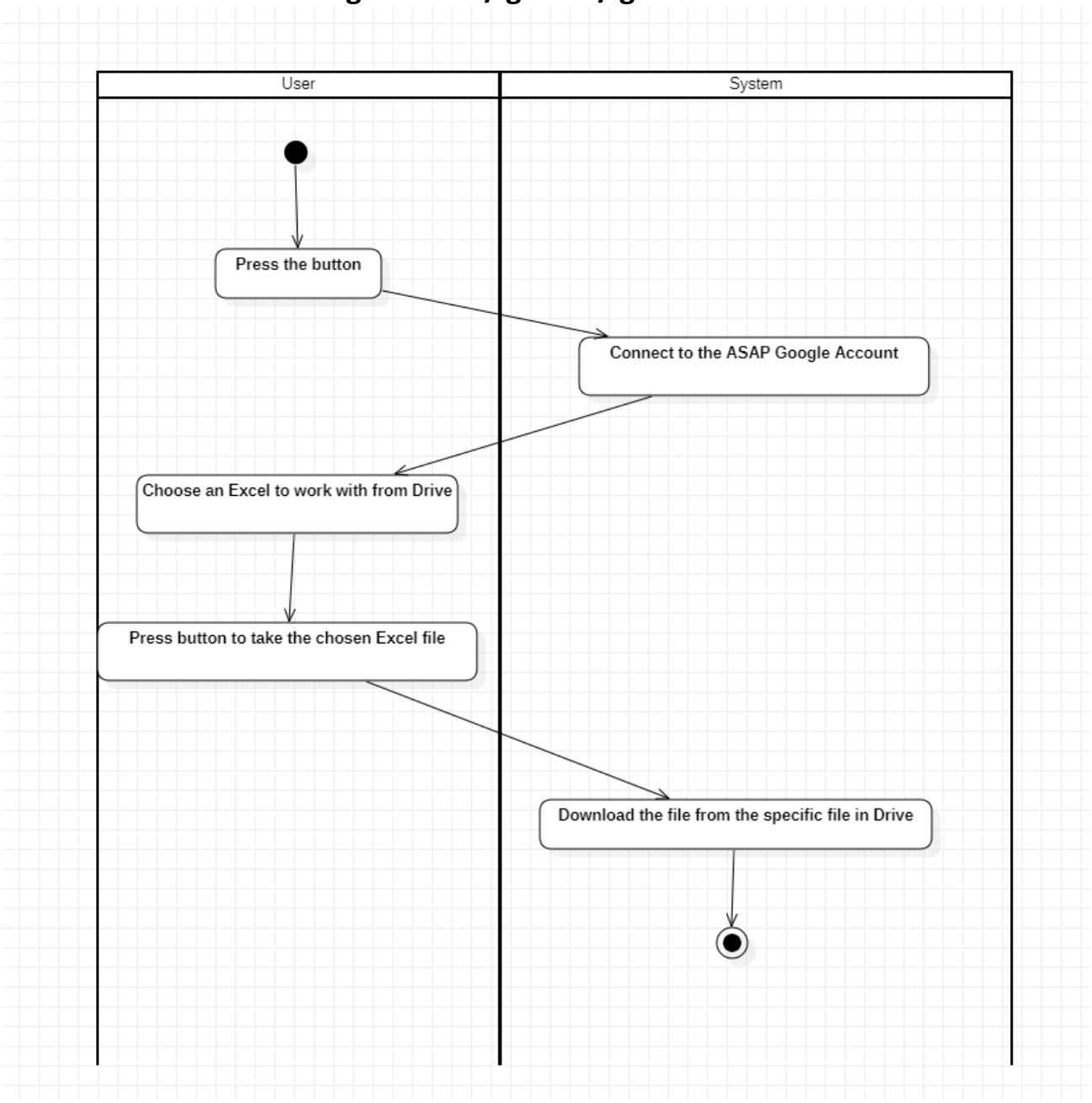
3.2.3 GenerateExcel



3.2.4. UploadCourse/UploadFile

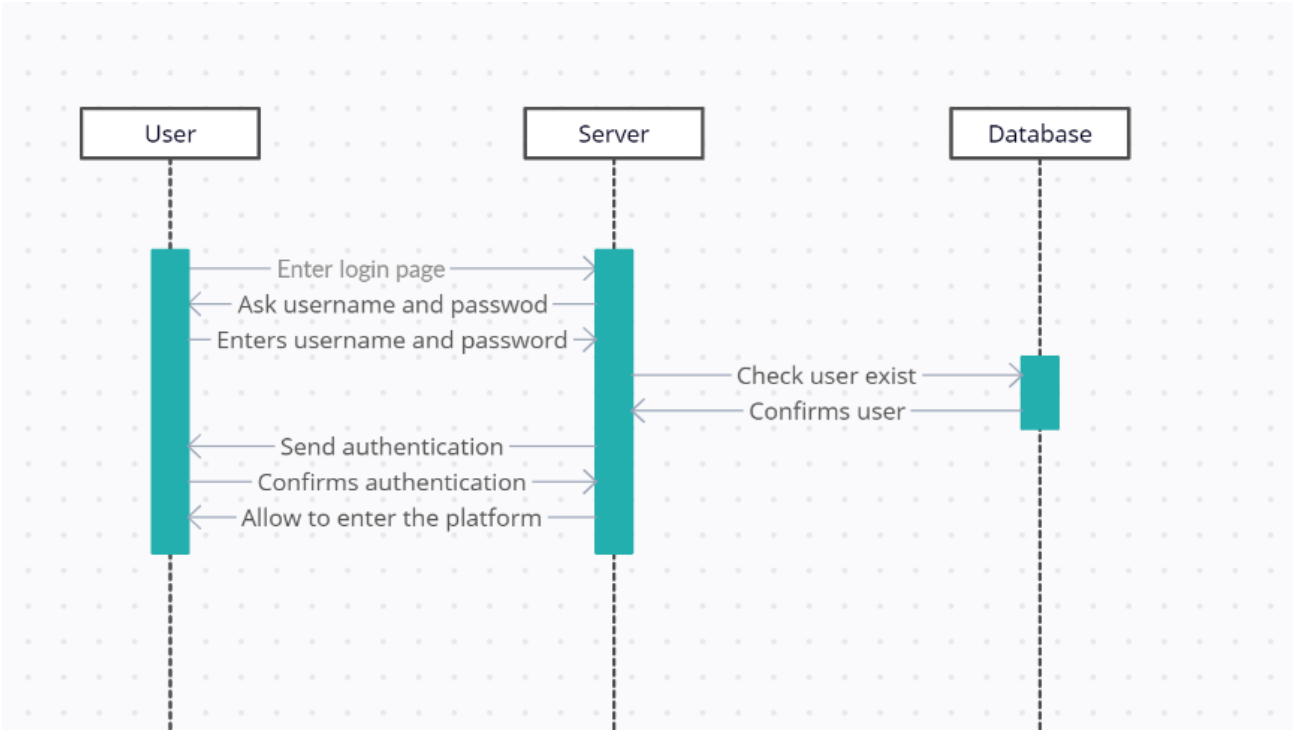


3.2.5. getCourse/ getFile/ getCourseList

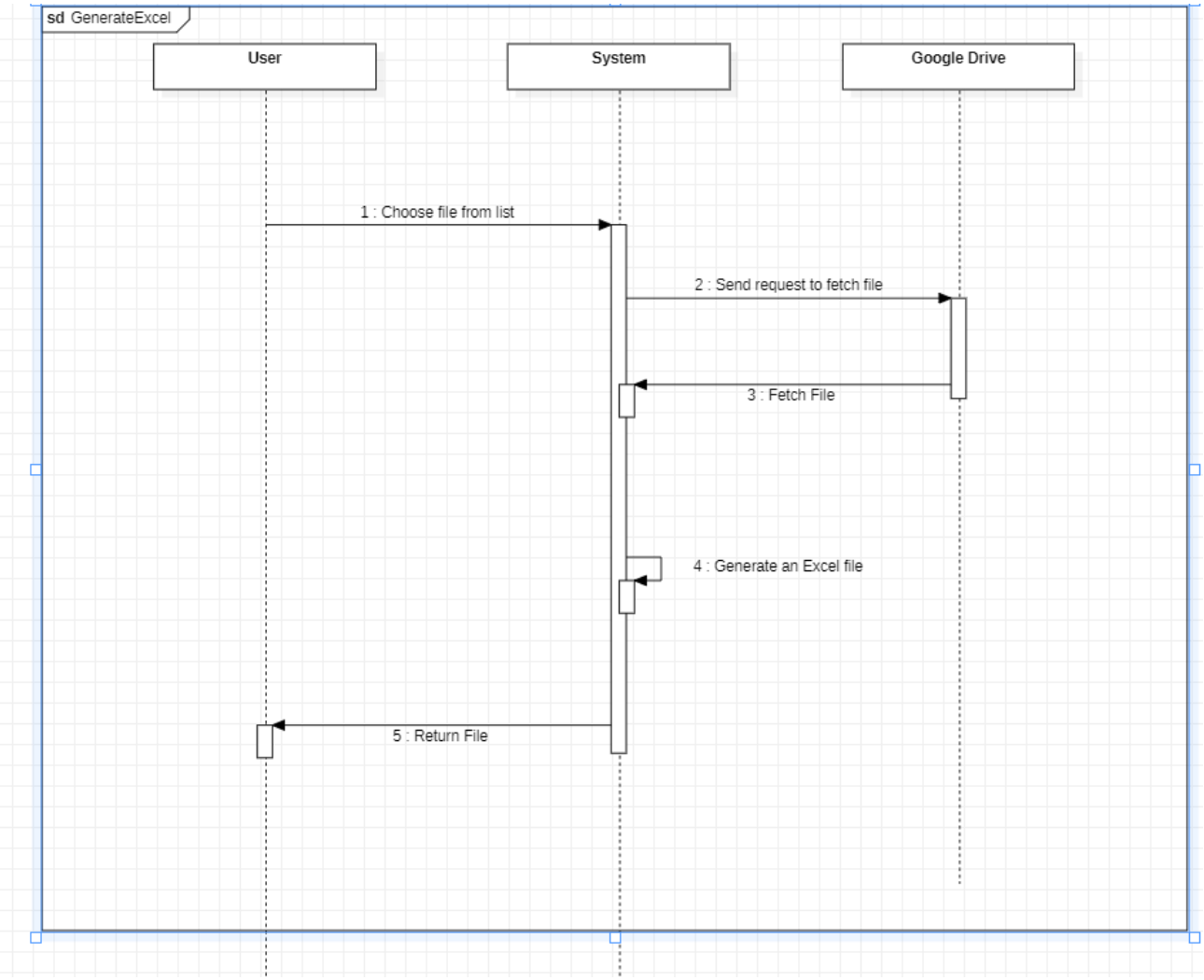


3.3 Sequence Diagram

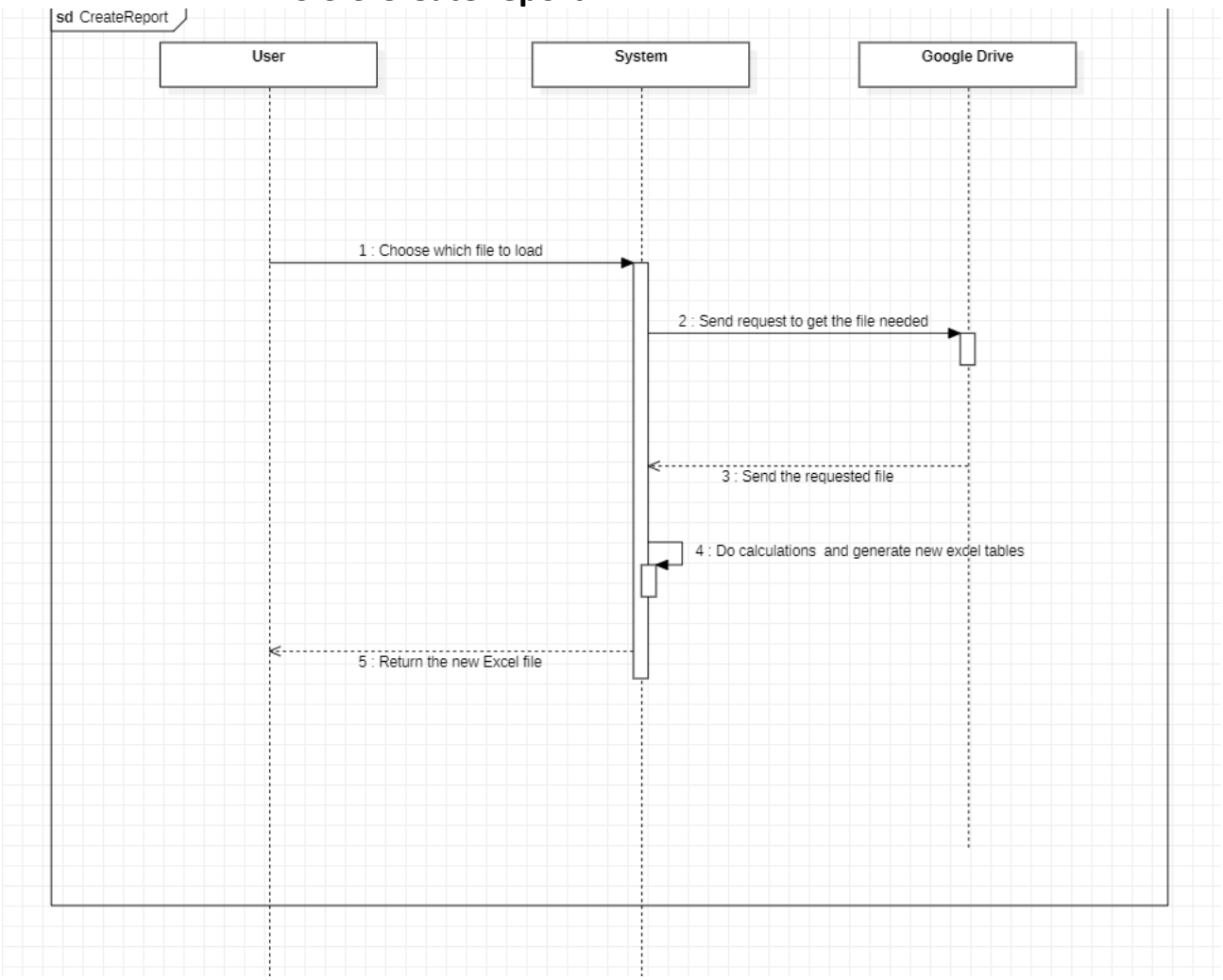
3.3.1 Login



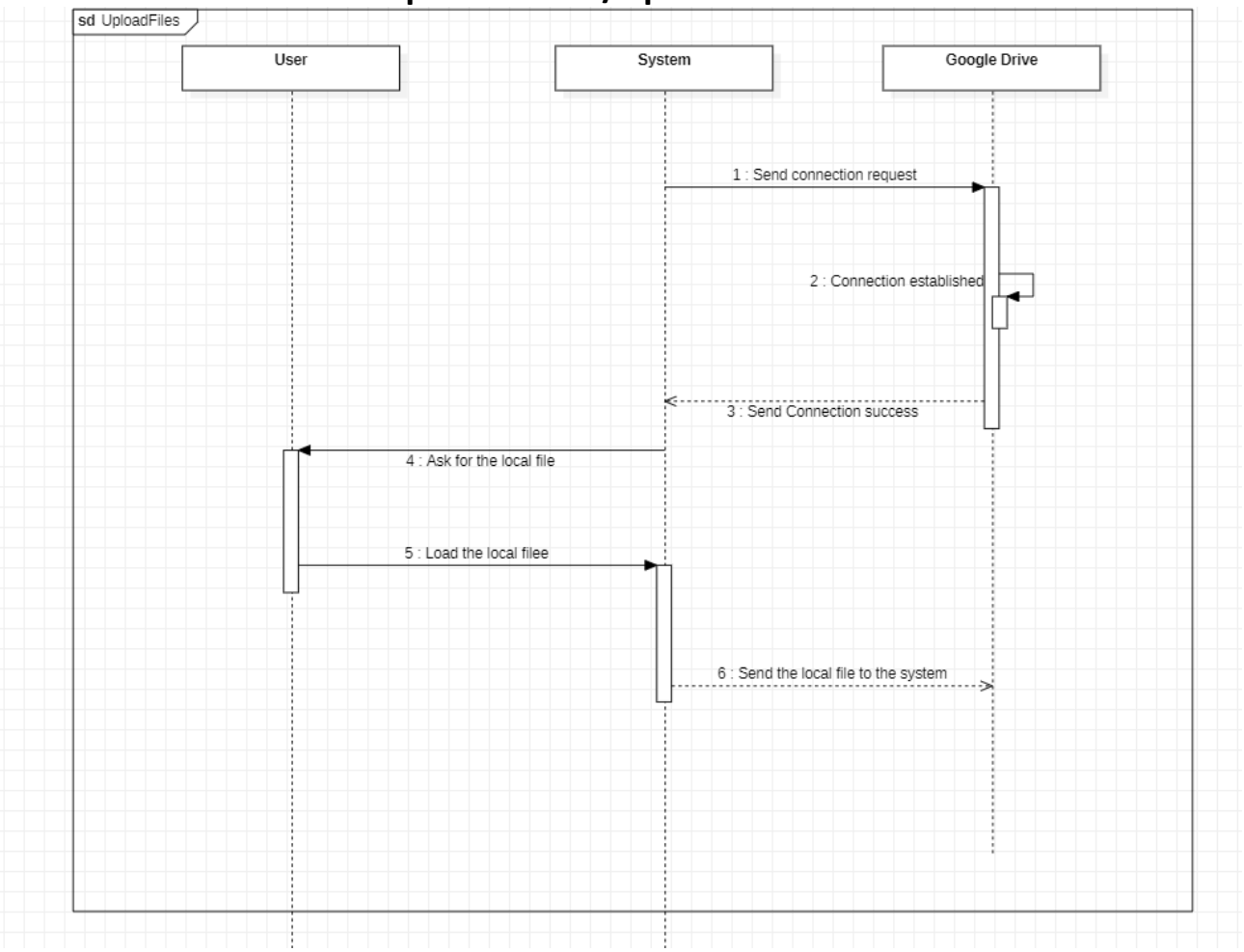
3.3.2 GenerateExcel



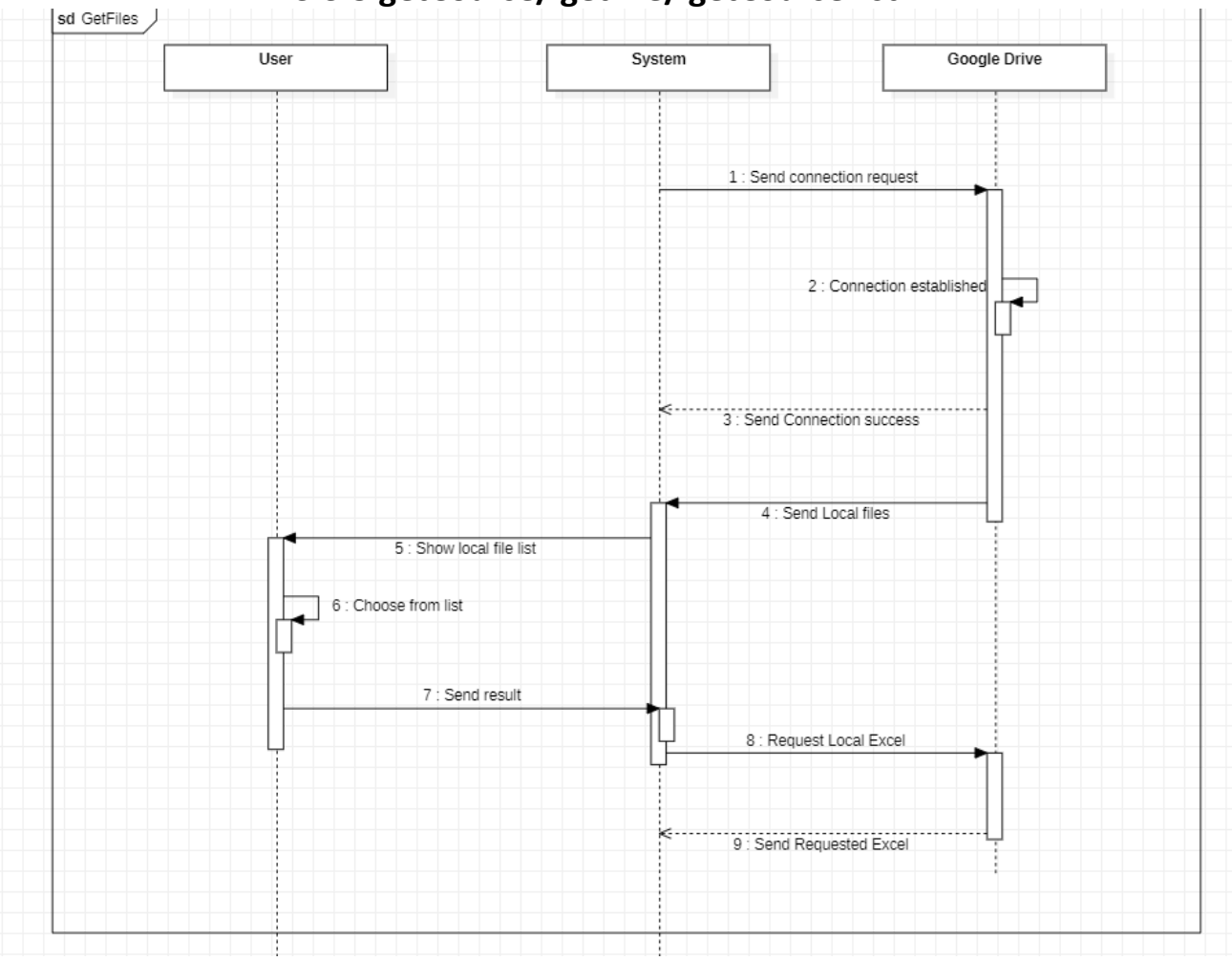
3.3.3 CreateReport



3.3.4 UploadCourse/UploadFile



3.3.5 getCourse/ getFile/ getCourseList



5.Test Plan

1.Introductiıon

1.1. Version Control

Version Number	Description of Changes	Date
1.0	**First Version**	**March 2023**

1.2. Overview

This test plan's goal is to develop an organized process for administering tests in the application for the Academic and Student Assessment Platform. For team members, it acts as a reference, describing which features to test or skip and offering information on intended test cases, procedures, and test techniques.

1.3. Scope

The use case test plans, test design guidelines, and test cases that match to the test plans are all included in this document.

1.4. Glossary

2. Features to be tested

2.1. User Login

The login process of registered users will be tested. It will be tested that users log in with the correct username and password, and receive a correct error message when they try to log in with incorrect information.

2.2. Course Creation

Teachers' process of creating new courses will be tested. Filling in the required fields such as course name, description and course content correctly and saving the course and creating successfully will be checked.

2.3. Exam Creation

Teachers' process of creating new exams will be tested. Correctly filling in required fields such as quiz name, description, questions and answers and saving the quiz will be checked for successful creation.

2.4. Results and Grading

Accurate calculation and grading of exam and homework results and calculation of their effects on the differential Course output and Progam output will be tested. The calculation of correct answers and responses, the correct application of scoring methods, and the correct display of results will be checked.

2.5. Teacher Control Panel

The correct operation of the control panel, where teachers can perform administrator operations on the application, will be tested. Processes such as teachers managing their classes, creating lessons, quizzes and assignments, and viewing results will be controlled.

2.6. Report Generation

The ability of teachers to generate reports on class and student performance will be tested. Correct generation of reports, correct implementation of report options, and display of reports in teachers' profiles will be checked.

2.7. Report Editing

Teachers' ability to edit the reports they create and customize the report content will be tested. It will be checked that the editing process is done correctly, that the content of the report is changed correctly, and that the edited reports are displayed correctly in the profiles of the teachers.

2.8. Data Transfer

The application's data transfer processes will be tested. It will be checked that the data is transferred correctly, that there is no data loss and that the data transfer processes are carried out in a stable manner.

2.9. Course Rewiev

A review system will be tested where teachers can share their feedback on courses. Correct recording of feedback, correct display of teachers' reviews, and authorities' response to reviews will be checked.

2.10. Downloading Excel Document

It will be tested that teachers can download Excel documents about student grades and performance. It will be checked that the documents are downloaded correctly, that the content of the documents is created correctly and that the documents are downloaded correctly to the teachers' computers.

2.11. Creating a Lesson and Exporting to Excel

It will be tested that teachers can create new lessons and transfer the data of these lessons to Excel documents. The correct creation of the lessons, the correct recording of the data, the correct creation of the Excel document and the correct transfer of the data to the content of the document will be checked.

3. Features not to be tested

3.1. Compatibility of the Application on Different Devices

The compatibility of the application on different devices and operating systems will be tested. How the application works on different mobile devices, tablets and desktop computers will be checked.

3.2. Performance of the Application

The speed, stability and scalability of the application will be tested. It will be checked how the application works in different usage scenarios and how it performs in high traffic and data density.

3.3. Course Participation

Students' participation in the courses and viewing the course materials will be tested. It will be checked that students log in to the course page with the correct password, view the materials and complete the exams and assignments, view the results and make the grading correctly.

4. Pass/Fail Criteria

4.1. Exit Criteria

In this document, “H” refers to the Highest priority, and “M” refers to the Medium priority.

100% of the test cases are executed.
All High and Medium Priority test cases passed.

5. Test Design Specifications

5.1. User Login

ID	5.1
Purpose	Login to the system.
Requirements	-
Priority	H
Dependency	
Procedure	• Login with the information you registered. • Redirect to home page upon successful login. • Try to login with wrong username or password. • Get a correct error message when logging in with invalid login information.
Cleanup	Exit

5.2. Course Creation

ID	5.2
Purpose	It allows them to track student performance and update lesson plans.
Requirements	-
Priority	M
Dependency	
Procedure	• Click the "Create Lesson" button to create a new lesson • Fill in required fields such as course name, description, and a password for students to access • Click the "Save" button to save the lesson • Redirect to the course list when you save successfully
Cleanup	Exit

5.3. Exam Creation

ID	5.3
Purpose	It allows them to track student performance and update lesson plans.
Requirements	-
Priority	M
Dependency	
Procedure	• Click the "Create Exam" button to create a new exam on the course page • Fill in the required fields such as exam name, description, questions • Click the "Save" button to save the quiz++
Cleanup	Exit

5.4. Results and Grading

ID	5.4
Purpose	It allows the accurate calculation and grading of exam and homework results and the calculation of their effects on the difference between Course Outcome and Program Outcome.
Requirements	-
Priority	M
Dependency	
Procedure	• The teacher selects the grading chart data they want to export to Excel. • Then click "Create Excel document" button in ASAP interface. • ASAP quickly processes its request and converts the selected data into an Excel format. • The system then gives him the option to download the Excel file to his computer. • The teacher downloads the file and opens the file to ensure that the lecture transcript data is displayed and properly organized. • The teacher checks that the grading is directly proportional to the Course outcomes and Program outcomes.
Cleanup	Exit

5.5. Teacher Control Panel

ID	5.5
Purpose	Processes such as teachers managing their classes, creating lessons, quizzes and assignments, and viewing the results will be under control.
Requirements	-
Priority	M
Dependency	
Procedure	• The teacher goes to the lesson creation section and creates a new lesson, fills in the required information and saves the lesson. • The teacher also tests quiz and assignment creation features. The teacher creates a simple quiz and assignment so all options and settings work as expected. • After the lessons, quizzes, and assignments are created, the teacher checks the view results section. The teacher allows the system to accurately display all created items and their details. • The teacher reviews all the actions taken and confirms that the control panel is working correctly and that all administrative actions have been successfully performed within the application.
Cleanup	Exit

5.6. Report Generation

ID	5.6
Purpose	It allows teachers to generate reports on class and student performance.
Requirements	-
Priority	M
Dependency	
Procedure	• When the teacher wants to create a report on class or student performance, he selects the relevant options and starts the report generation process. • The application generates the correct report based on the selected data. • The content of the generated report is displayed correctly and added to the teacher's profile.
Cleanup	Exit

5.7. Report Editing

ID	5.7
Purpose	It allows teachers to edit reports they create and customize report content.
Requirements	-
Priority	M
Dependency	
Procedure	• When the teacher wants to edit a report that he has already created, he selects the report editing option and starts the editing process. • The application correctly opens the selected report and offers editing options. • The teacher makes the desired changes in the report content and saves it. • The edited report is displayed correctly and added to the teacher's profile.
Cleanup	Exit

5.8. Data Transfer

ID	5.9
Purpose	It allows the application's data transfer processes.
Requirements	-
Priority	M
Dependency	
Procedure	• The app accurately stores student grades, class performances and other relevant data. • Teachers can view this data correctly and transfer data accurately. • It is ensured that the data is transferred correctly, that there is no data loss and that the data transfer processes are carried out in a stable manner.
Cleanup	Exit

5.9. Course Rewiev

ID	5.9
Purpose	Correct recording of feedback, correct display of teacher reviews, and authorities' response to reviews will be checked.
Requirements	-
Priority	M
Dependency	
Procedure	• The teacher logs into the review system interface. • First, the teacher creates a review of a lesson. He records his feedback by typing the review text and determining the corresponding rating. • Next, the teacher views the generated review and verifies that it has been saved correctly. • The system also allows authorities to respond to reviews. The teacher checks a response to their review and confirms that it has been displayed correctly. • There is also a section that displays reviews publicly. The teacher checks all reviews that are displayed correctly by the system.
Cleanup	Exit

5.10. Downloading Excel Document

ID	5.10
Purpose	It allows teachers to download Excel documents about student grades and performance.
Requirements	-
Priority	M
Dependency	
Procedure	• When the teacher wants to download an Excel document about student grades and performances, he selects the relevant option. • The application creates the Excel document by selecting the correct data. • The document is downloaded correctly and can be opened on the teacher's computer.
Cleanup	Exit

5.11. Creating a Lesson and Exporting to Excel

ID	5.11
Purpose	It allows teachers to create new courses and transfer the data of these courses to Excel documents.
Requirements	-
Priority	M
Dependency	
Procedure	• The teacher goes to the lesson creation section. • The teacher fills in the required fields to create a new lesson. • The teacher clicks the "Save" button to complete the lesson creation process. • The system confirms that the new course has been successfully created and offers the option to export to Excel document. • The teacher selects the data he wants to export to the Excel document. • The teacher clicks on the Create Excel document button. • The system converts the data selected by the teacher into Excel format. • The system offers the option to download the Excel file to the teacher's computer. • The teacher checks that the data of the new lesson in the Excel file is correctly placed and displayed.
Cleanup	Exit

Test Results

Individual Test Results for User Operations

Priority	Date Run	Result	Explanation
High	30.04.2023	Pass	User login functionality worked as expected.
High	1.05.2023	Fail	Course creation encountered issues with saving courses.
High	2.05.2023	Fail	Error encountered with Google Drive token during data transfer.
Medium	3.05.2023	Pass	Exam creation was successful with no errors.
Low	4.05.2023	Pass	Grading system calculated scores accurately.
High	6.05.2023	Fail	Teacher control panel had issues displaying class management options.
Medium	8.05.2023	Pass	Report generation feature worked as expected.
Low	10.05.2023	Pass	Report editing allowed for correct changes and display.
High	12.05.2023	Pass	Google Drive token error resolved, data transfer is now stable.
Medium	14.05.2023	Pass	Course review system worked correctly, displaying reviews accurately.
Low	16.05.2023	Pass	Excel document download feature functioned as expected.
High	18.05.2023	Fail	Issue encountered in creating lesson and exporting data to Excel.
Medium	20.05.2023	Pass	Login functionality remained stable and accurate.
High	22.05.2023	Pass	Course creation error resolved, functionality is stable.
Medium	24.05.2023	Fail	Issue encountered with grading system not displaying scores correctly.
High	26.05.2023	Pass	Teacher control panel error resolved, all features accessible.
Medium	28.05.2023	Pass	Data transfer issue resolved, data transfer is stable.
High	30.05.2023	Fail	Issue encountered with Excel document not downloading correctly.
Medium	1.06.2023	Pass	Exam creation functionality remains stable and accurate.
High	2.06.2023	Pass	Grading system error resolved, scores displaying correctly.
Medium	3.06.2023	Pass	Excel document download issue resolved, downloads are functioning correctly.
High	30.04.2023	Pass	User login functionality worked as expected.

Summary Of Test Results

Priority	Number of TCS	Executed	Passed
High	11	11	6
Medium	8	8	7
Low	3	3	3

We have executed 22 test cases. Also, 11 high test, 8 medium test and 3 low test cases are passed. Exit criteria is met.

6.User Manuel

1.System Requirements

System requirements

Listed below are the system requirements required for this desktop application to work:

Minimum Requirements

- Operating System: Windows 10, macOS 10.14 or newer, Ubuntu 18.04 or newer
- Processor: Intel Core i5 or equivalent
- Memory: 8GB RAM
- Storage: At least 20 GB of free disk space

Recommended Requirements

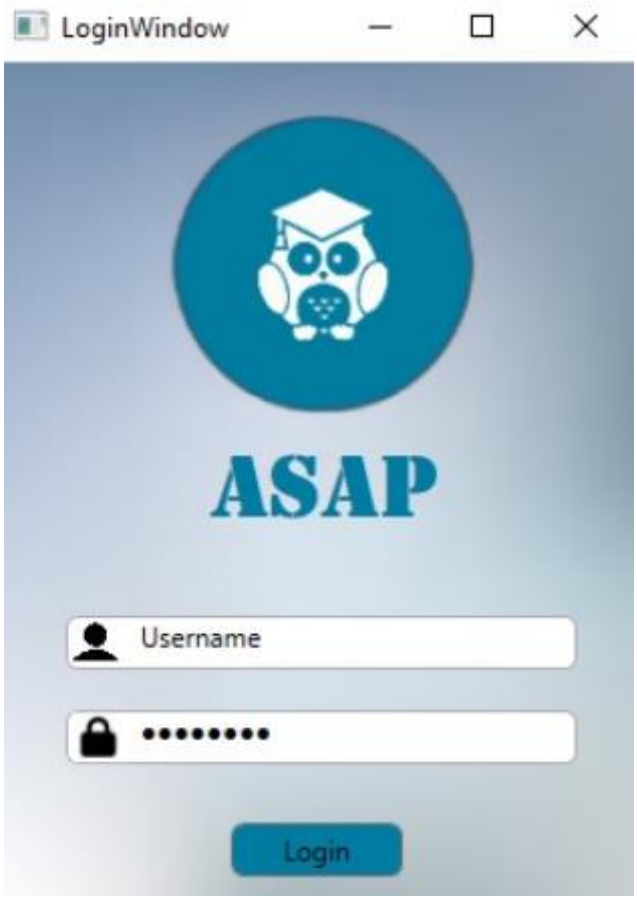
- Operating System: Windows 10, macOS 11.0 or newer, Ubuntu 20.04 or newer
- Processor: Intel Core i7 or equivalent
- Memory: 16 GB RAM or more
- Storage: At least 50 GB of free disk space

Additional Requirements

- Internet Connection: Internet connection is required to enjoy the full functionality of the application.
- Screen Resolution: A minimum resolution of 1280x768 is recommended.

2. Sign Up & Login Page

We have two types of user accounts. The first is accounts for admins, and the other is for teachers. User information will be previously processed into the system and account information will be given to teachers by the admin so that they can log in.



3.Main Page

After the user has successfully logged in, they will see such a window. From here, the user will see

different options depending on the type of account logged in.

A. User Panel (Teacher Panel)

When the user opens the user panel page, they will see the following page. Teachers who have successfully logged in can see this page. This panel can be examined under 6 headings. These are shown in the image below.

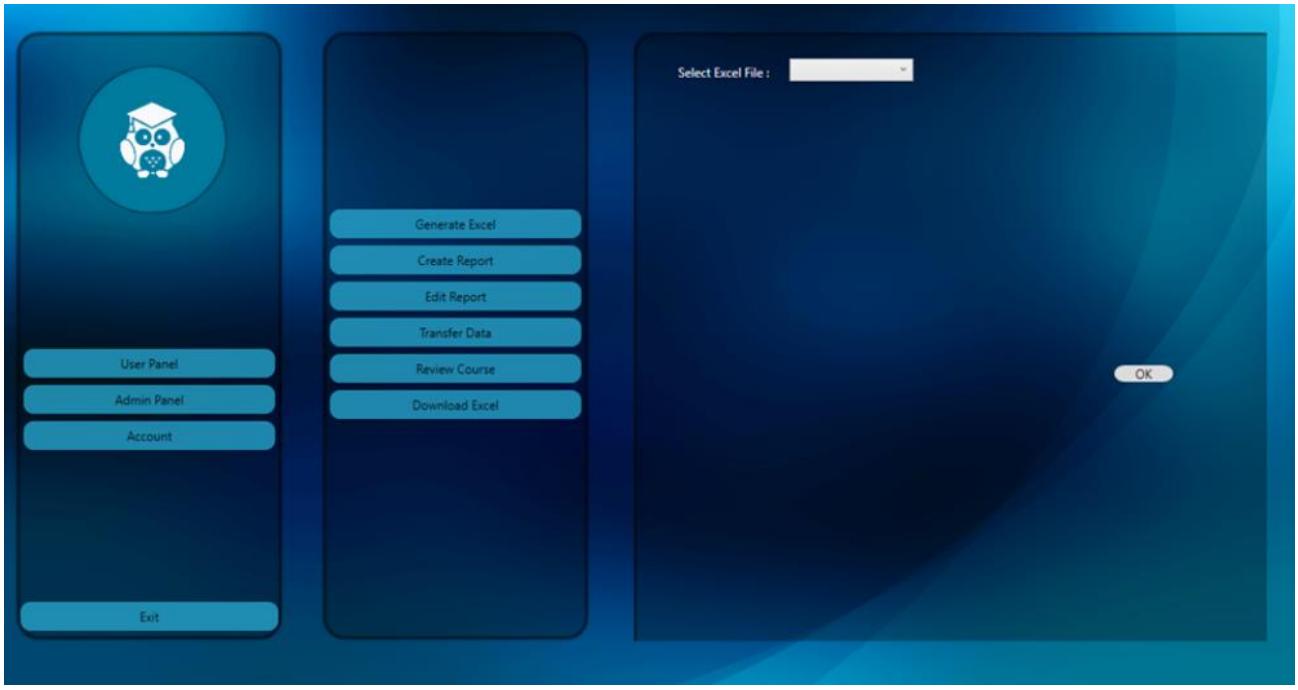
A1. Generate Excel

When you click on this pane, you will be asked for the necessary information to extract a particular course record. These are "Select a Course", "Midterm Count", "Homework Count", "Lab Count", "Quiz Count", "Project Count", "DÇ Count".

The courses in "Select a Course", which is one of this information, must be specified in the system by the Admin. If the relevant course is not in the system, ask the Admin to open this course. The rest of the information is the information that should be entered by the teachers. Many values such as Midterm, Final, Homework contain the number of questions. For this reason, it is necessary to enter the number of questions of the relevant title into the system before creating an excel file. After the necessary information is entered into the system, you can create an excel file by pressing the "Generate" button at the bottom right.

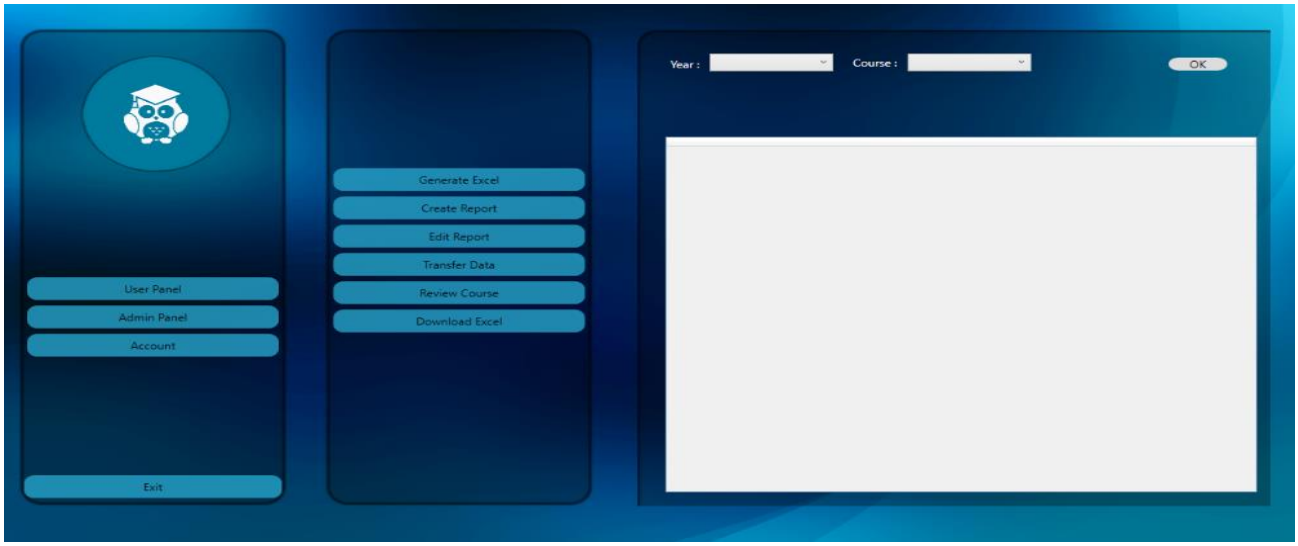
A2. Create Report

You can get a report created via "Generate excel" from your computer via this page and start generating the report. Please note that the requested information must be filled in completely. Select the excel file of the course via the "Select Excel File" option on this page. Press the “OK” button to generate the report of this excel file.



A3. Review Course

From this page, you can view the excel files you have uploaded to the system.



B. Admin Panel

You must be logged in as an admin to access this panel. In this panel, course registrations can be created, updated and deleted.

B1. Add Course

Here, the lesson opens for teachers to fill out. "Course Name", "Course Year", "Student Count", "DÇ Count" information is entered for this opened course.

After the data is entered correctly, a table will be created. In this table, you can make the DÇ-PÇ relationship. Each tick in the boxes indicates that the relevant row and column are related. These values will be used to calculate the data entered by the teachers. Therefore, make sure that this section is filled correctly. After completing the relevant process, press the "Ok" button.

B2. Update Course

You can use this tab to change the dc-pc table of a course.

B3. Delete Course

You can delete incorrect, missing or unwanted files written on the system here.

4.Excel Files

This pane contains general information about how to fill out excel files.

a.Generate Excel Files

These files are created after the operations in the "Generate Excel". The specified fields in the files must be filled. If these values are entered inconsistently, the system cannot score correctly while

generating the report. For this reason, the information as shown in the figure must be entered completely and correctly.

After the relevant file is filled, it can be uploaded to the system to generate a report.

b.Report Excel Files

There have been changes on these files. In addition to the data you entered, some calculations and final value tables have been added to the excel file. This data is ready for use where relevant. However, if you have made the previously mentioned errors, the file will not give the correct results. Before using the data in the file, make sure it is correct.