

1. Executive Summary

During this term we've packed ourselves with necessary information and tools to actualize a collaborative e-learning platform with Django framework. Main intention of this project is to get the required knowledge to design, develop and deploy a full cycle software project. In order to do this we've done some research and development.

In our first task we have created a repository in github and done research on git commands as they are crucial know-how for any software engineer. We've also inspected Wikidata and its APIs to learn how APIs work and how we can integrate these APIs to our projects.

In second task we have finished a simple blog tutorial which is developed using Django framework. During this tutorial we have learned basics of python, sql (postgresql), CSS, HTML and MVC structure.

In the third task we have done research on e-learning platforms and we have prepared ourselves for elicitation of requirements by conducting domain research. With this information we have conducted our elicitation with our main stakeholder and collected the requirements.

Currently our mockup screens and requirements are ready for our stakeholder to review. And the structure of our application is defined. Next stop in the current phase is to start the development of the web application according to what we have gathered so far.

2. Status and Impact of deliverables

Deliverable	Impact*	Completion Percentage	Status
Creating a GitHub repository	2	%100	Done
Research on git commands	2	%100	Done
Basic Web Application Development	3	%100	Done
Requirements Specification	3	%80	In progress
Creating mock-up screens	2	%80	In progress
Developing web-app (Details and sub-tasks will be populated in the next reports.)	5	%0	Not Started
Deploying web-app (Details and sub-tasks will be populated in the next reports.)	5	%0	Not Started
	Overall Completion in %	31,43	

*Impact ranked between 1(lowest) and 5(highest)

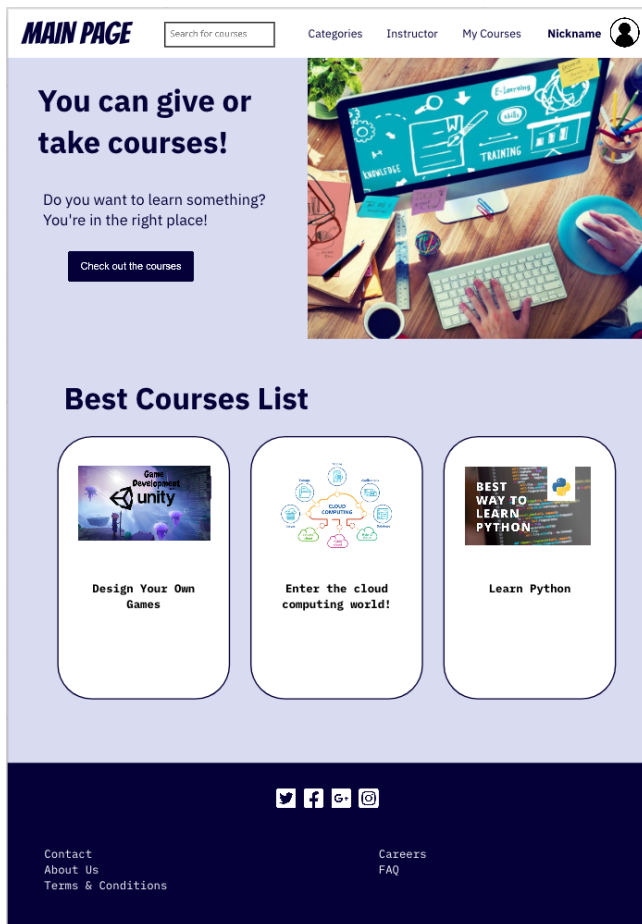
**Completion percentage calculated using this formula: $(\text{impact} * \text{completionPercentage}) / \text{numberOfDeliverables} * 100$

3. Evaluation of Tools

We used github as a distributed version control system as it is crucial for teams projects. Also used Miro tool to create our mock-ups. We decided to use postgresSQL for database as it has visual UI tool to manage it and works well with mac OS. For a framework we have selected Django mainly because our stakeholder requested this way as it is lightweight and easy to manage.

4. Deliverables

4.1. Scenarios and Mockups



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COURSE PAGE

Progress
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[Chapter 2.1](#)
[Chapter 2.2](#)
[Chapter 2.3](#)
[Quiz](#)
[Chapter 3](#)
[Chapter 4](#)
[Chapter 5](#)
[Chapter 6](#)
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Asker:
SomeNickname : How did you do X? 21.02.2022

-----**Answer**

-----**OtherGuy** : I tried this and that. 25.02. 2022

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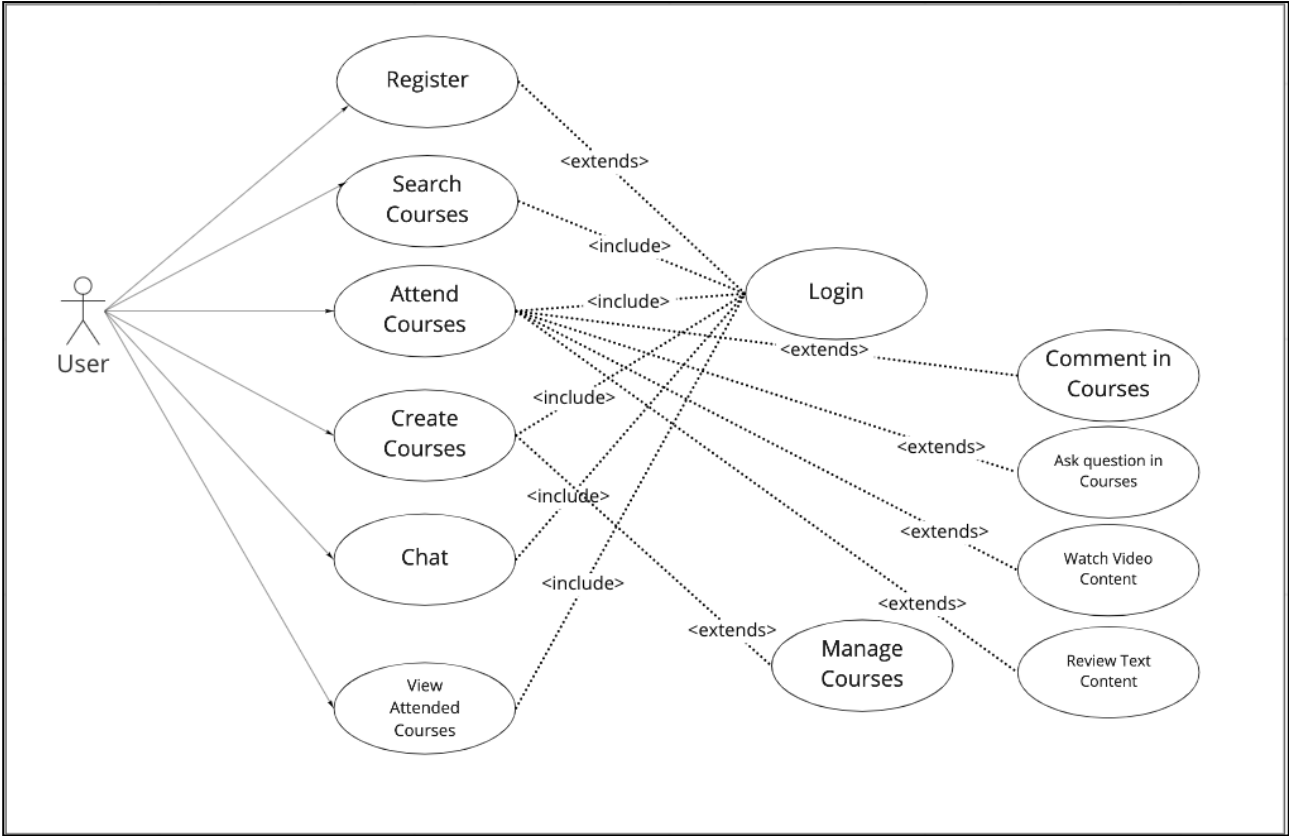
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4.2. Software Requirements Specification

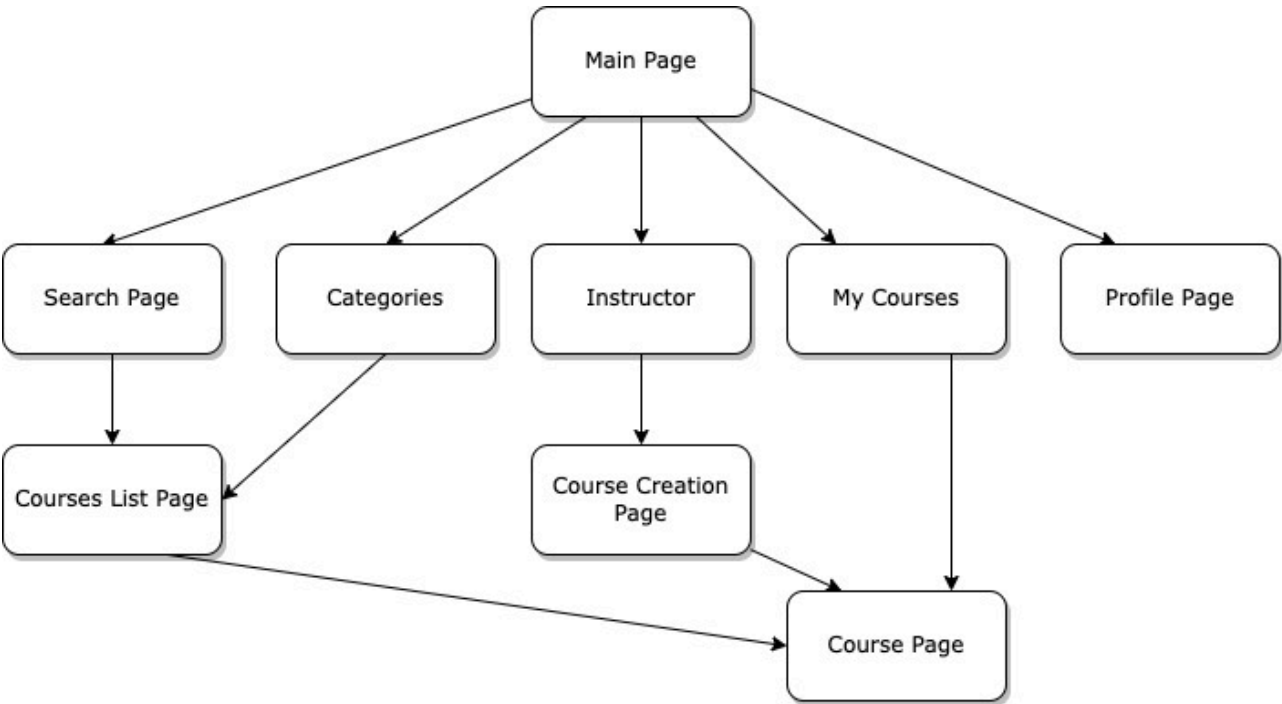
- System shall have one user subscription type.
- After a user is subscribed he/she will be able to take courses.
- Users should be able to give course on this platform.
- System should provide main page.
- System should be able to stream videos
- System should be able to assess quizzes
- System should be able to provide written documentations
- Users who are giving course will be able to create chapters in their courses
- Users who are giving course will be able to structurise their content in chapters (e.g. video fist then written material and quiz at the end.)
- In order to motivate users there should be badges.
- System should calculate the course taken and give reward points to users who are taking course.
- Users should be able to get badges with their reward points.
- Users who are taking course should be able to give evaluation and feedback comments to instructors.
- System should be able to categorize course contents
- System should provide categories dropdown list to the users.
- System should enable users to search desired courses.
- System should provide my courses page to the users.
- My courses page should consists courses taken and courses which are in progress.
- Courses which are in progress should show the % of the progress
- Users who are taking a course should be able to write messages to instructor.
- System should provide Instructor page to the users.
- Users should be able to define their courses in instructor page
- System should provide profile page to the users.
- Profile page should provide a facility to add/remove profile picture and personal data such as name, surname, mail address, website (if any) , biography and Social media URLS.
- Profile page should provide privacy settings. (TBD).
- Main page should have most popular courses according the user's interests
- System shall ask interests of users while signing up
- Course page will have chapter list
- Users will be able to see other users who are taking the same course
- Users should be able to follow each other
- Chapters should have prerequisite chapter information

4.3. Software design documents in UML

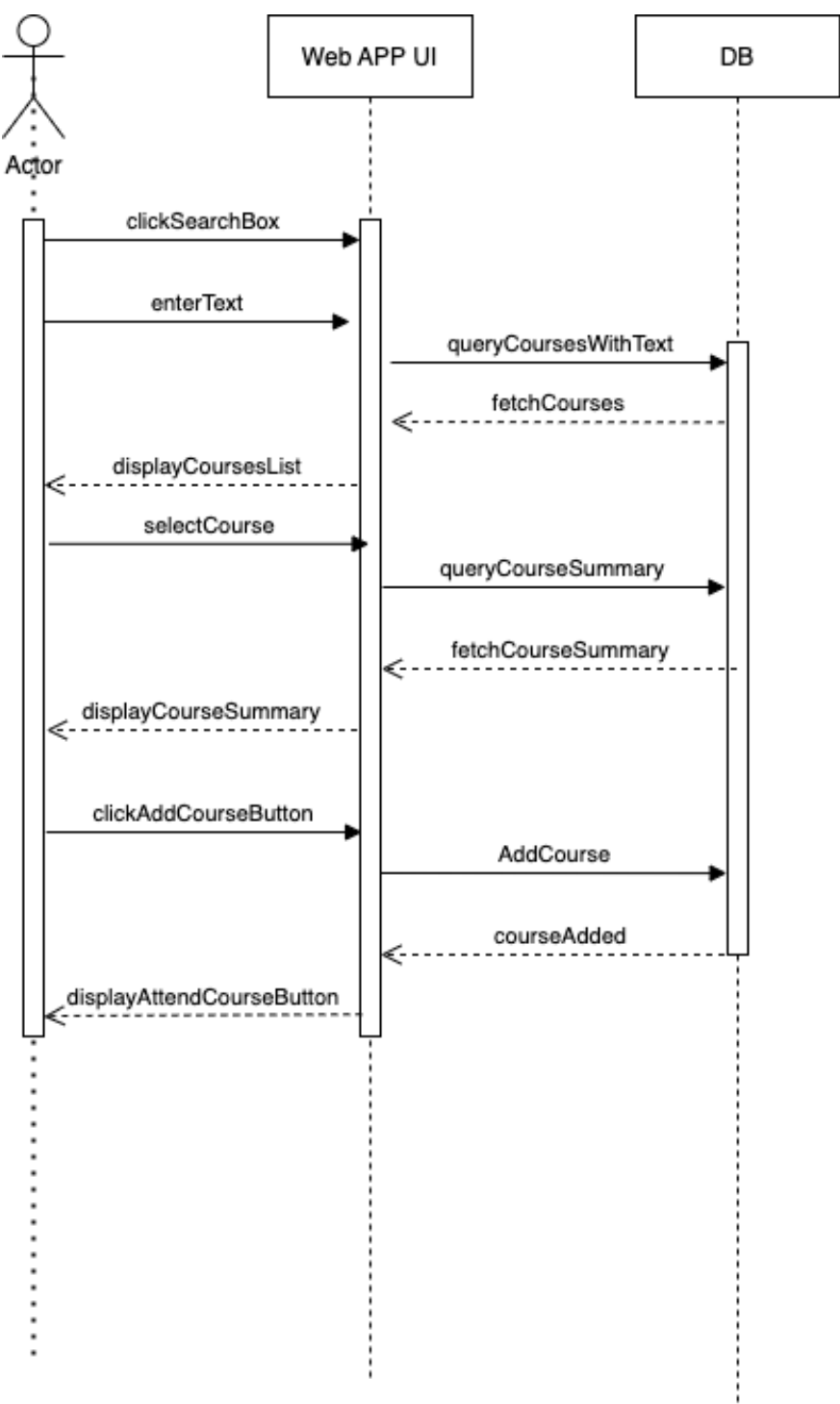
Use Case Diagram



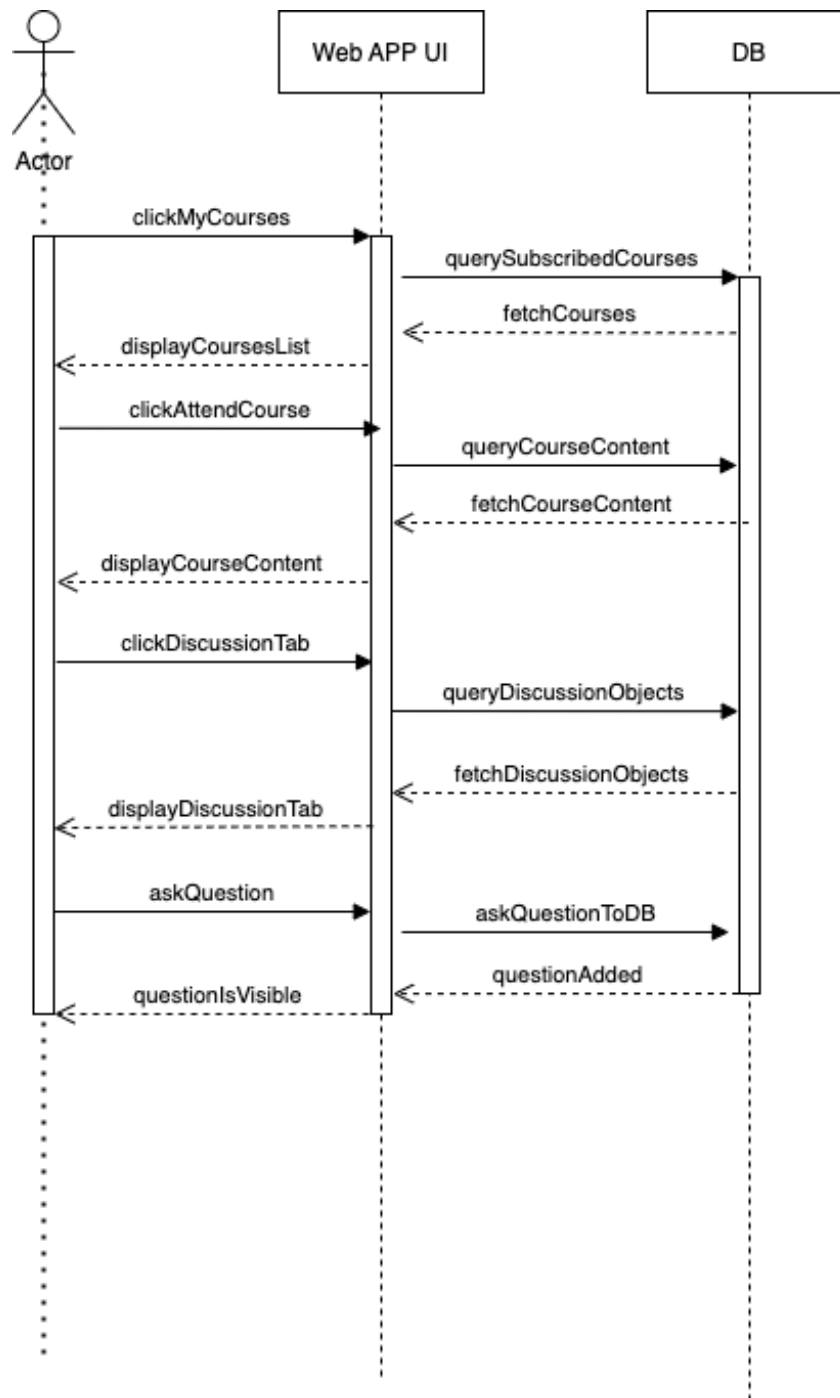
Site Architecture



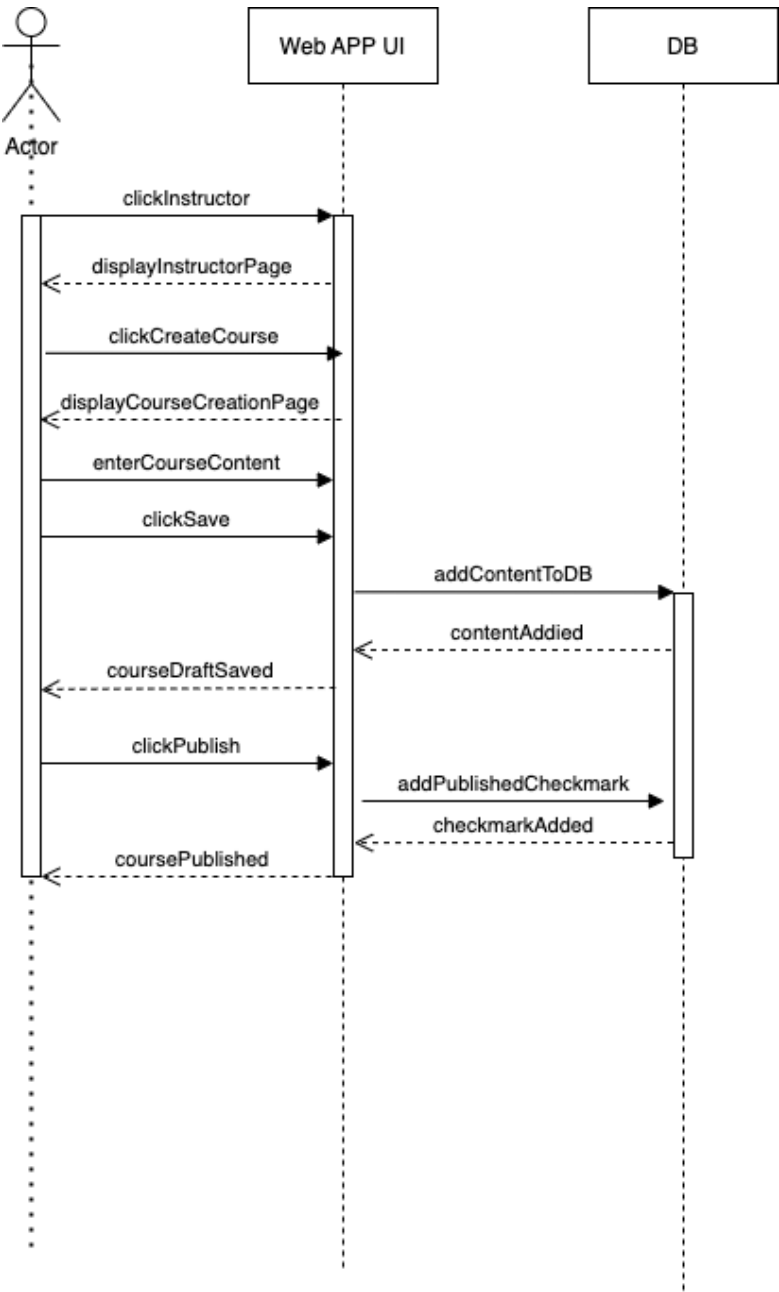
Sequence diagram of searching and subscribing a course



Sequence diagram of attending a course and asking questions



Sequence diagram of creating a course



4.4. Project plan

Tasks	Planned Delivery Date
Setup the environment(Django)	11.04.2022
Creating a PostgreSQL Database	11.04.2022
Admin panel will be created	11.04.2022
User log-in functionality will be developed	11.04.2022
Page views will be created(main page, profile page, instructor page and my courses page.)	12.04.2022
Course creation page will be created	19.04.2022
Course page will be created	19.04.2022
Create course functionality will be added to instructor page	19.04.2022
Courses list page will be created	26.04.2022
Search functionality will be added to main page	26.04.2022
community, glossary, my notes, participants and dependencies tab will be added to course page	26.04.2022
Prerequisite chapters association will be defined.	03.05.2022
Overall UI improvements will be made.	10.05.2022
Best courses list will be added to main page	10.05.2022
Editable site banner will be added to main page	10.05.2022
courses taken and courses in progress tabs will be added to my courses page	17.05.2022
Course completion progress bar will be implemented in my courses page	17.05.2022
Chat functionality will be implemented	17.05.2022
Video streaming functionality will be added	17.05.2022
quiz functionality will be added to course page	17.05.2022
User badges will be implemented	20.05.2022
authorizations will be defined for users(e.g. creator of courses will be able to edit their course)	20.05.2022
Cloud environment will be created.	22.05.2022
App will be deployed to cloud environment	28.05.2022

