

Session Title: Project Planning and Projects

Session No: 6

Learning Objectives:

By the end of this session students will be able to:

- Plan a project as a team using a project brief
- Build an application to meet the requirements of a project brief
- Design and implement extensions to the project
- Present and explain the finished team project to other students

Session Outline

Intro & Framing

5 mins

From this point onwards in the course the students will work on team projects. In this session:

1. Instructors will introduce the students to the project briefs
2. Students will form teams
3. Instructors will explain a basic project planning technique
4. Students will start their projects

Briefs are provided for three different projects. These briefs should be used as a starting point for students. After completing the required tasks students can develop the projects further to add their own ideas.

The aim of providing a brief, instead of allowing the students to come up with ideas from scratch, is to:

1. Reduce the learning curve of going from structured lessons to an open-ended project
2. Provide more structure and guidance on the minimal requirements and direction of the project
3. Reduce the amount of time students need to take finding suitable APIs and tutorials
4. Ensure that every team makes some progress on a project and has code to present

As this is a course for complete beginners, the students will not need to use GitHub to share their code with other team members, they won't need to deploy their projects using Heroku or a similar tool, and they won't build webpages with Flask.

Block #1: Project Briefs

10 minutes

In this block the instructors will explain the structure of the project briefs and give an overview of each project.

Each brief includes:

- An overview of the project
- Tasks to create a minimum viable product
- Ideas for extending the project further

- Links to related resources, such as APIs
- Example code for students that need additional guidance

The required tasks are designed to give students direction when they start their projects. Students should aim to complete these tasks before adding their own ideas to the project.

After giving an overview of each project, give students a few minutes to read through the briefs individually.

Relevant Exercise(s):

Exercise 6.1: 5 minutes

- Students should read each project brief and decide which one they want to work on

Block #2: Team Formation

5 minutes

Now that the students have read the project briefs, it's time to get them into teams.

If you have a room, you could allocate each corner of the room to a project and tell students to talk to other people in that corner in order to decide who to work with. Use whatever method you see fit for your workspace and class size.

Teams should contain 2-3 students. If a student wants to work alone, tell them that they'll get more out of the project with a team. If they insist on working alone then there isn't really a reason to stop them.

Relevant Exercise(s):

Exercise 6.2: 5 minutes

- Students should get into teams of 2-3

Block #3: Project Planning and Prioritisation

5 minutes

The last step before students start working on their projects is to create a list of prioritised ideas. Students will aim to implement these ideas after they have completed the required tasks outlined in their project briefs.

In this block you'll introduce the lightweight planning tool called MSCoW (pronounced Moscow). Students will then complete an exercise to come up with ideas and then use MSCoW to prioritise them.

Relevant Exercise(s):

Exercise 6.3: 10 minutes

- Individually, come up with as many ideas for the project as possible
- Share one of your ideas with the team, going around each team member until all ideas have been covered
- As a team, prioritise the ideas into "Must, Should, Could, Won't"

Block #4: Project work

Lots of minutes

From this point onwards students will work on their projects as teams.

You should aim to check in with each team to make sure that they are progressing against the minimal project tasks. You may need to provide additional support to teams that make slower progress with these tasks.

Since students aren't expected to use Git to share their work, they can choose whichever method they want to share their code with their team members.

Encourage students to write their code as functions as this will (hopefully) make it easier to integrate with their teammates' code.

Relevant Exercise(s):

Project: Remainder of the session

- Students work on their projects
- Aim to check-in with each team at least once
- Provide support to teams that request it or are having difficulty

Recap & Closing

Time: 5 mins

How can you get the learners to articulate what they learned today, celebrate what they achieved and inform them what they need to do as homework?

Question 1: Name the four categories for MSCoW

Answer: Must, Should, Could, Won't

Homework Tasks

Students should continue working on their projects as homework

Guide for Instructors

General comments