Code Nation

Develop: Coding

Unit 3: Using Collaborative Technologies and Unit 33: Developing Mobile Apps

Role : Technical Consultant

The brief

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Part one:

Setting up your collaborative tools

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Brief

Scenario

Being able to work effectively as part of a team in a modern technical department is essential. There are all sorts of tools and services out there to help this happen seamlessly. As a technical consultant, it's essential that you communicate well throughout technical projects. This brief sees you flex your skills using collaborative technologies whilst building a mobile app for iPhone.

This brief covers your final units (3 and 33 respectively.)

1) Setup accounts and teams on the following services :

- **Trello**
- **GitHub**
- **Slack**

2) Once you've done that, **configure specific roles for your team** members, ensuring the correct levels of permissions are assigned.

3) Create a risk assessment detailing the risks involved in using collaborative tools like Slack and GitHub

4) Discuss with your team and document on Trello under a "risks" board what issues might be faced when working with the chosen technologies

5) Configure Slack to work with Trello using Slackbots to enable our technologies to work together

Part two:

Planning your mobile app project

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Brief

Scenario

Now we have the accounts and teams setup that we need, let's start planning our project. Trello and Slack are essential for this. Using Slack, we'll communicate with our teammates and we'll setup our tasks to be completed on Trello.

This brief covers your final units (3 and 33 respectively.)

1) Create your Trello board for your app

2) Include details on the board about who is the project leader, who is responsible for ensuring Slack is effectively moderated and the equipment and tools needed for both collaboration and the mobile app (e.g. MacBooks, Xcode, Slack for communicating)

3) Organise an all-team Slack meeting that allows people to suggest ideas for the app build. Make sure that any inappropriate comments are removed or moderated effectively.

4) Once you have discussed your app with your team, it's time to start properly planning the project using Kanban principles on Trello. Create boards for **tasks to be completed, in progress tasks** and **completed tasks**.

5) Create tasks for the project and team members should be assigned tasks as appropriate.

6) Create a stand-up schedule for your team

Part three:

Developing your app using project management methods

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Brief

Scenario

It's time to explore developing the app, which allows users to rate their most recent coffee purchases. Before developing it, you should explore different kinds of technologies available – should the app be made using cross-platform software like Xamarin, or Apple-designed tools like Xcode just for iPhone?

This brief covers your final units (3 and 33 respectively.)

1) Create a small group presentation discussing the benefits of **native app development vs cross-platform**

2) Conduct regular stand-ups to help project manage the app build and use the stand-ups to determine who is doing specific tasks from your team's Trello board, whilst using Slack to ensure communication is clear and regular

3) Develop your app as a team

4) Push the app to GitHub so everyone has access to it

5) Test the app on a range of devices, including the iOS Simulator, at least 2 different iPhones and make any necessary changes and document them. Consider letting end users test your app as well.

Part four:

The retrospective

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Brief

Scenario

Now your app is built, it's time to conduct a retrospective and review of how the build went and how you would improve the project management techniques in a future project.

This brief covers your final units (3 and 33 respectively.)

1) Create a group presentation reviewing the whole project, commenting on :

- **The usefulness of Trello, Slack and GitHub**

- **Efficiency of the team and project management – were stand-ups helpful? Was Kanban planning effective?**

- **Was testing effective? What was the purpose of the tests you carried out?**

- **What problems you faced using collaborative technologies and how you overcame them (including moderation issues, essential information getting lost due to ongoing team chat etc.)**

- **The limitations you found when using these collaborative technologies**

- **Will you be archiving the team chat / Trello boards for future reference? Why/why not?**

That concludes your work on Unit 3 and 33.

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