

PRCO304

The Project Initiation Document

Table of contents:

1. Introduction	2
2. Business case	2
2.1 Background and Motivation	2
2.2 Business Objectives	2
3. Project objectives	3
4. Initial scope	3
5. Resources and dependencies	4
6. Method of approach	4
7. Initial project plan	5
7.1. Control plan	6
7.2. Communication plan	6
8. Initial risk list	6
9. Quality plan	7
10. Legal, social, ethical and/or professional issues	7
10.1 Ethics	7
10.2 Legal	7

1. Introduction

As a student preparing to graduate from university, the idea of finding a job is very daunting. There are many job finding services out there, that can help, but not many are able to offer a simple solution. I am planning on creating a simplified solution that allows a student to download an app which can recommend jobs, based on a questionnaire. Currently, many job searching apps just search for a job role specified by the user, they don't assist in finding the user a compatible job role. They also don't integrate with each other's job databases. I'm hoping to develop a solution that can recommend a role to a user, and search multiple job APIs, simplifying it for the end user.

2. Business case

2.1 Background and Motivation

One of the most worrying parts of finishing university is trying to find a suitable role for myself, and a job to match it. Many websites offer to find jobs for graduates, however these can offer different jobs, and still not help with finding an ideal role. Main websites only offer a job finding tool, not a job role finder, which is very can be tricky for someone to discover when entering the industry. At the end of university, students know what they are capable of from their experience at university, and what they want to do in terms of job goals. But finding a job to match is very difficult.

An app like this could be desirable to recruitment organisations such as a graduate recruitment firm. As the app tries to find a suitable job for a candidate, it could also try and find a suitable candidate for a certain job. I do currently have relations with the recruitment department at my workplace and can use this to explore their side of the recruitment process.

2.2 Business Objectives

To simplify the process for finding a graduate job by:

- Identifying the graduate's ideal role through a questionnaire (this will be researched and tested. I have recently developed something similar during my placement year that matched applicants with a specific role)
- Building a profile of the graduate (Location preferences, graduated, salary, e.t.c)
- Searching multiple job sites for relevant jobs (Reed, Monster, GlassDoor)
- Recommend jobs that match the graduate's profile

3. Project objectives

1. To research the characteristics of popular IT roles, and develop a questionnaire to find these characteristics in graduates. Sources will range from articles online to interviewing employers.
2. To analyse existing job searching apps, and recommend improvements
3. To analyse user requirements for a job searching app
4. To analyse potential mobile platforms and backend systems to support the app
5. To investigate and design a system that is scalable and compatible with a range of platforms
6. Create an app with a backend system from the research done

4. Initial scope

1. To ensure the app is well developed, and suitable for the target market. Research will be done to ensure this happens.
 - 1.1. Analyse existing job searching apps, and recommend improvements that could be included in my app.
 - 1.2. Research the characteristics of popular IT roles, and develop a questionnaire to find these characteristics in graduates.
2. User requirements will be elicited using interviews, research from existing apps and online studies, and the development of user stories. User requirements will be expressed primarily in text and UML diagrams.
3. Proposed system
 - 3.1. Students to find a suitable role for themselves
 - 3.2. Allow students to create a preference profile to allow them to customise searches
 - 3.3. Recommend jobs on their recommended role
 - 3.4. Provide details on how to apply for the recommended job

5. Resources and dependencies

Depending on the outcome of the research, I will be using AWS or firebase to support the backend of my system. Firebase is available for free, however is very basic. AWS offers some free tier services, however anything more will cost a fee per month. Firebase is being considered for its simplicity and dedicated support for mobile platforms, it can handle users and data but uses a NoSQL cloud database. AWS offers a lot of services but may be too complex depending on the app/backend requirements. A combination could be used to support the APIs and the database. The resources will be researched as part of the project to find what is suitable for this project.

6. Method of approach

I have chosen to use the prototyping software development process because of its heavy user involvement and use of prototyping to refine the product. The requirements will be clear to ensure the project doesn't spiral out of control. Overall development of the project will be fairly fixed, and won't be subject to any major change in requirements.

Possible technologies are Firebase or AWS(Backend), swift or Android Java(Client End). These technologies will be researched and evaluated during the start of project.

7. Initial project plan

Stage	Start Date	End Date	Products/Deliverables/Outcomes
Project Initiation Document	10/11	24/01	PID
Analyse existing job searching apps, and recommend improvements	25/01	31/01	Produce an evaluation of current job searching apps to assist in developing user requirements
Analyse user requirements for a job searching app	01/02	03/02	Outline requirements; Evaluation of possible development technologies
Research the characteristics of popular IT roles, and develop a questionnaire to find these characteristics in graduates	04/02	10/02	A tested questionnaire that will allow the app to recommend a job role for the user
High Level Design	11/02	14/02	Design documents (Architecture; DB schema; GUI style guide; Technologies;)
Prototype 1: basic functionality on the client and backend	15/02	19/02	Create a basic application with the back end; User testing;
Prototype 2: Prototype refinement	20/02	26/02	Refine the 1st prototype using the feedback; User Testing;
Prototype 3: Additional Requirement	27/02	03/03	Add additional requirements to the app and backend
Prototype 4: Prototype refinement	04/03	10/03	Refine the 2nd prototype using the feedback; User Testing;
System and User Testing	11/03	14/03	Test results, final system;
Extra Time	15/03	22/03	Additional time for any over running stages
Final Report	23/03	31/03	PRCO304 Report

7.1. Control plan

1. Highlight reports as dictated by the PRCO304 module
2. Review meetings with project supervisor as dictated by the PRCO304 module; additional ad-hoc meetings as are necessary
3. Risk management (see Section 8); communication plan (see Section 7.2); quality plan (see Section 9); exception reports¹⁴ and plans as necessary
4. Requirements review at each prototype iteration.

7.2. Communication plan

Review meetings will be held with the supervisor in line with the Control plan. Further ad-hoc communications will take place as needed.

8. Initial risk list

Risk	Management strategy
Schedule overrun	I have added an extra stage of time for any schedule overrun. The deadline for the project is also ahead of the module deadline to accommodate any unpredicted circumstances
Issues developing the back end of the app	The app can be made independent from the back end by caching user data to the device, and contacting APIs directly from the device
Technology failure	Regular backups of the code will be taken, and stored in multiple locations. For example, time capsule, dropbox and bitbucket. Any changes made to code will be added to bitbucket through source control
AWS is no longer available due to funding	If for any reason I am no longer able to fund AWS, I can move to their free services, make the app independent from AWS, or create a local server from my personal machine.
Unable to develop a tested questionnaire	I have previously developed a basic questionnaire that can be used in an event where I am no longer able to create and test a comprehensive questionnaire for the app.

9. Quality plan

Quality Check	Strategy
Requirements	Requirements will be checked to ensure that they are correct, relevant, complete, achievable and demonstrable
Design validation	The design will be checked against requirements compliance, HCI guideline compliance, screen-design acceptance, DB normalisation and software design principles (e.g., cohesion, coupling)
Back End and Client Check/ Testing	As a new function is added, it will be tested. At the end of each stage, the full system will be tested against the requirements and a testing list.
User Testing	The system will be tested in the hands of users without any interference to ensure that system has met the necessary standards.

10. Legal, social, ethical and/or professional issues

10.1 Ethics

As part of my research and testing, I will require users to test and give feedback on my questionnaire and app. The "PRCO304ApprovedEthicsApplication.pdf" will cover my project sufficiently.

It will be made clear to the end user that the results from the questionnaire are just a suggestion.

10.2 Legal

Data protection act

- Only relevant data will be stored regarding the user
- Users will be informed about what access the app will need using just-in-time notifications and on the app page in the app store.
- Data will be kept secure including personal data and passwords
- I will seek users' consent regarding any new data processing