Project Proposal

TITLE

Web Application for Contractor Hire and Open Contracts for Contractors (Contractor Contactor)

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Higher Diploma in Science in Software Development

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1. Objectives

The objectives for my project are co-ordinating and delivering a Web Application which will display my abilities as a Software Developer.

First a concept of a project must be created to follow. For this concept I will pick the idea of a Web Application for Contractors and Contracts for Contractors. This will be a two sided app.

On one side we will have the contractors. They can join the Web App and then they can build up their profile and add a portfolio of their work and other credentials. They also can put up their prices per hour/day/job. Here the people who avail of their services can leave a review. The purpose of this will lead to a more customer focused outcome in regards the skills offered. It will be open to anyone who is a contractor in any domain.

On the other side of the Web Application there will be a page where people looking for jobs to be done can put up a posting along with some details for the contractors to peruse and contact them if the offer seems good enough for them. This is the noticeboard.

In this Web App I will create everything myself. This is an area of great interest to me as I am in constant contact with contractors in my day job.

For this project there are the following objectives:

* I will use a server side programming language to maintain a complex persistent data storage for the Web Applications functionality.
* I will also use a client side programming language to present a GUI for the Web App.
* As I continue through this project I will produce detailed academic documentation with references, correct structure and precise formatting
* I need to implement Project Management skills to complete my project in a fair and timely manner.
* The development skills I have been learning throughout the course will be implemented to build this Web Application to a high level with a high quality user experience.
* As I proceed through the project there will be regular out testing and documentation of the test plans and the results. Testing shall include functionality tests, unit tests, integration tests, security tests, malicious intent testing.
* Finally once the project is complete I will pitch the project through a presentation to my lecturer.
* The code, report and cover sheet ready to submit for the 21st of April 2021. I will present the video and the project presentation submission on April 21st by midnight.

The project will be presented at a time specified thereafter.

1. Background

This project will be based around a Web Application in which any type of contractor can put up their portfolio and contact details on the site. Here they can be contacted by anyone who wishes to avail of their services.

This site will also allow the lay people to put up contracts in the hope of a contractor coming to contact them and offering them a good deal. Here the customer can ask them a question and wait for a response.

The reason I chose this idea is because there is a gap in the market here. I am currently a recruiter and a lot of my work is on Job Boards looking for Contractors. While working I am always looking for a more effective way for people to find work.

There are a few sites like this one already on the internet such as Fiverr, Up-Work and Tradesmen.ie, however they are more focused on specific areas of work. These sites which are either specific to certain domains, such as IT or Trades, or have a poor user friendly interface. I want to focus on general contracting for anyone who wishes to create a profile and advertise their services. From PTs to Architects.

The users of my Web App will have the opportunity to put a lot of their info up for the potential customer to see. Their profile.

I want my site to be attractive too, so that it is a pleasure to look at as well as easy to use.

The sites I have mentioned earlier, UpWork and Fiverr are for a more international audience. My site will focus exclusively on the island of Ireland. This focus on this market will be a key element of my site. This way I can serve my customers more directly and focus on the needs of a familiar jurisdiction. Irish people always want to buy home brands so I want to provide them with the same opportunity here.

Another different route my site will take is that the contractor’s details as well as the contracts will be available to anyone who looks for free, they will not be required to become a user. This will be a fast one stop shop for our customers.

Finally I want to do this to allow the people of Ireland to have an easier time to find work and to find the kind of specialist they need through a user friendly Web App.

The mix of these functionalities is wider in spec than then the competition I have mentioned above. It allows both the customer and the contractor a greater level of control. Both can post and both can search.

1. Technical Approach

For this Web Application there will be a planned approach to be followed categorically.

Throughout the background research, Work Sites like Fiverr, Upwork and Tradesmen.ie keep coming up as the sites most like this idea, further research has lead me to the decision that I can do better if different functionalities are created.

As the project continues web resources such as StackOverflow and previous learning materials from the NCI will be used.

Amazon Web Services will be the platform that the Web App will be built on and the languages will be Ruby on Rails, HTML, CSS and SQL.

When they put up their profile on the site, there they can put any information on themselves that they see fit such as rate, location, previous awards or successful projects. I want to create a really user friendly interface that encourages the user to search.

This Web application will have the following requirements:

* Login for Contractors, customers and admin.
* There will be a nav bar for better functionality and allow the user to go to all the different sections easily.
* There will be an about us page which explains our origin and vision.
* An area for the contractor to put up his profile, there will be a few options here for them to put up more information on themselves.
* Sections in which the contractor’s profile will be stored for example electricians in electricians.
* There will be the ability for the customer to see the contractors by skill or area.
* The ability or someone on the site to send a contractor an email.
* There will be another section for a customer to put up their own ad for the contractors to find.
* The site will have a search bar for specific terms.
* Anyone can contact the admin if they have any special request or query.
* There will be social media links at the bottom.

Testing strategies will be implemented as the project progresses so that the end product is up and working in good order.

1. Special resources required

* Ebooks – I will use Ebooks online as I go through this project to help me finish my project.
* Web Sources – As I go through this project I will be online constantly checking web sites for tips on how to approach certain aspects.
* Previous NCI Documents and education – We have access to a lot of material from the NCI that I check on to help me complete my project.
* SQL – I will be making use of this to help me build the database.
* AWS – I shall develop the Application on AWS.

1. Project Plan

Gantt chart using Microsoft Project with details on implementation steps and timelines – project deliverable



1. Technical Details

I will implement this project on AWS through the languages of:

* Ruby on Rails
* HTML
* CSS
* SQL

1. Evaluation

Going through this project it will be added to regularly. With each week of progress there will be communication with my supervisor and his feedback. This will help in the completion of this project.

* Going through the project each item, a page or a functionality or an object, will be tried to make sure it runs. This will be done systematically in piecemeal fashion to make sure that it works effectively. The code will be clean, indented and documented. For example I will test my login function to make sure that I can have multiple users signed in at once.
* Validation will be carried out to make sure the web app fulfils the requirements I set and to make sure it runs.
* Manual testing will be very important going through this project, as well as record keeping for of the testing.
* Black box testing will be implemented, checking the source code and keeping the objectives in mind.
* White box testing will be done to test the structure and design, the security, paths, inputs, outputs, loops and statement and objects by using test cases, statement and branch coverage.
* Certain areas are off limits to certain types of users.

In the end, friends, family and my supervisor will try out my Web Application to make sure that it runs smoothly. If needs be I will make amends until the project is done and ready for submittal.

Ronan Behan 7/2/21

Signature of the student and the date