COMP30022 Semester 2, 2020

ePortfolio

The Tech Pirates

Auren Denasha-Andrew, Miles Lamberti, Girish Mohan Madnani, Abdiaziz Farah, William Lord

Deployed Web App : https://tech-pirates-portfolio-web-app.web.app/

Github Repository : **https://github.com/mileslamberti/ePortfolio**

Requirements

Overview

Our client wished to provide customers with an online portfolio web app, an ePortfolio, which proudly displays their projects. Customer's projects are comprised of collections of files (which have a wide range of file types) and need to be logically sorted and displayed. Projects must be able to be shared with other people, therefore there must be support for downloading files. Users of the website must be able to have their own personal account which contains their projects as well as some information about themselves. Additionally, users must be able to configure the visibility of their profiles so that they can hide their profile and projects from others. The requirements of the ePortfolio can be partitioned into the following two categories:

Functional Requirements
- Register a new account
- Log into a preexisting account
- Display and edit autobiographical information
- Create projects
- Upload files to projects
- Share projects (including downloading files) and view profiles
- Configure privacy to hide or show profile

Non-Functional Requirements
- Responsive
- User friendly
- Visually appealing (a thought-out design)
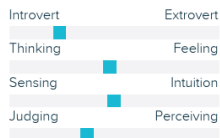- Security of sensitive information
- Reliable

User Personas

Max Adastal
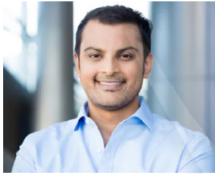
Friendly | Smart | Shy

"Uni students have put in years of hard work, we've really put it in"

Age: 24
Work: Recent software grad
Family: Single
Location: Melbourne

Personality

Introvert — Extrovert
Thinking — Feeling
Sensing — Intuition
Judging — Perceiving

Goals

- To land a job even though he has not prior experience working in it
- To be able to showcase his uni work well
- To succeed
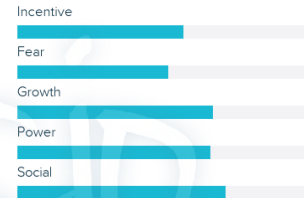- To not get frustrated with the ePortfolio site

Frustrations

- How you get experience if everyone wants you to already have experience
- Not being considered for a job because he only has a uni degree
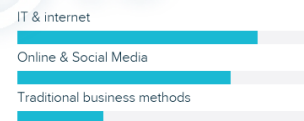- People not respecting his achievements

Bio

I have worked hard throughout uni, putting in a good, sound effort. I have not worked in IT as I have been studying full time throughout my whole degree. Uni was hard work but I got through. Now I am frustrated with how hard it is to find a job as everyone wants me to already have years of experience in everything.

I want to be able to put together a portfolio that demonstrates the skills I have learnt throughout my degree so that employers can see the skills and work ethic I have built throughout university

Motivation

Incentive
Fear
Growth
Power
Social

Preferred Channels

IT & internet
Online & Social Media
Traditional business methods

Melissa Harraway

Optimistic | Hard working |
Determined
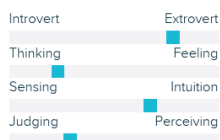
"Hard work and persistance is all there is too it"

Age: 30
Work: Software CEO
Family: Married, kids
Location: Melbourne

Personality

Introvert — Extrovert
Thinking — Feeling
Sensing — Intuition
Judging — Perceiving

Goals

- For tasks to be completed effieciently and thoruoughly
- To form a team of hard working, clever employees
- To succeed
- To be able to easily judge the potential employees portfolios

Frustrations

- People not putting in enough work
- Being slowed down by others
- The ePortfolio site does not feel professional
- Too much time wasted navigating an ePortfolio site

Bio

I am a hard working, clever woman. I have gotten here through persistance. Sucess isn't easy but time and effort give results. Here at my company I expect nothing but that from my team. We are a productive, modern software company known for our high quality product designs.

I am working tirelessly to continue to grow and expand my company with likeminded professionals

Motivation

Incentive
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Preferred Channels
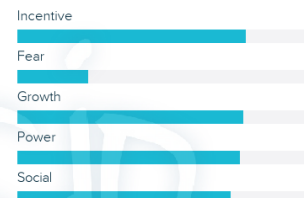
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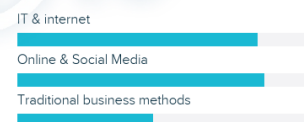
User Stories

ID	As a <Role>	I want to <Do something>	So that <Achieve some goals>	Priority
1	Max (Uni-Grad)	Upload uni projects	Work can be showcased professionally	HIGH
2	Max (Uni-Grad)	Add past experience	Employers can see what I have done and achieved	HIGH
3	Max (Uni-Grad)	Control access to ePortfolio	Privacy can be controlled	MEDIUM
4	Max (Uni-Grad)	Create and edit an "about me"	I can explain and promote who I am	MEDIUM
5	Max (Uni-Grad)	Register	I can use the ePortfolio	HIGH
6	Max (Uni-Grad)	Login/logout	I can access my profile	HIGH
7	Max (Uni-Grad)	Update and organise a project	I can showcase my work in a professional and impressive manner	HIGH
8	Melissa (Employer)	View a user's ePortfolio	I can decide who to hire	HIGH
9	Melissa (Employer)	Contact owner of ePortfolio	I can ask them questions or hire them	MEDIUM
10	Melissa (Employer)	Easily interact with website	I do not get frustrated and waste time	HIGH
11	Melissa (Employer)	Browse search and view registered users	I can find potential employees	MEDIUM
12	Software developer	Ensure code is understandable	It can be maintained	MEDIUM
13	Software developer	Easily modify/extend the system	I can be more productive	MEDIUM
14	Client	The system to be reliable	It is available and usable all of the time	HIGH
15	Client	The system to be complete	Requirements are met	HIGH
16	Client	The system is secure	Future users can feel secure in using the site	HIGH

Implemented Features

All of the requested requirements of the client were implemented in the final product, as well as some additional functionality that we believed would enhance the users experience and improve the ePortfolio. These additional features are indicated with an asterix. The implemented features can be split into three categories, in which the <u>Profile</u> category encompasses all features related to the users profile, including account management functionality. The <u>Project</u> category refers to all functionality that relates to how projects are displayed, edited and shared. Finally, the <u>General</u> category contains all features that relate to the general use of the web app.

Profile
- User registration, login and logout.
- Autobiographical information (about me, contact details)
- Multiple experiences and education history can be added
- User display picture
- Profile tags (used to display key skills)*
- Unique path for each user so that they can share their profile
- The option to toggle between public and private profile visibility

Project
- Upload files
- Download files
- Share projects consisting of files
- Add descriptive information to projects (title, subtitle, description)
- Organise files within a project into cards, which can be dragged and dropped into a desired order*
- Option for user to upload or select a default image for a project card*
- Add descriptive information to cards (title, subtitle, description)

General
- A home page, including a slideshow
- Help buttons to explain functionality*
- A profiles page, which displays all public users of the ePortfolio, whose profiles can be visited*
- Search functionality within the profiles page to find specific users (can search via handle, display name or skill tag)*

- Security of users accounts ensured via system of unique tokens for user sessions (sensitive information, or editing of any aspect of profile or project requires authentication)
- Encryption of user's password. Passwords are stored encrypted such that even a database manager does not have access to their password.

Testing

Testing throughout the development process was done at the end of each sprint, to ensure that new functionality works correctly and that its introduction does not interfere with any pre-existing functionality. Note, no testing was completed after the first sprint as the implemented features were very sparse at that point, and not useful to test.

Completed after second sprint:

Task: Register User:

Problem	Method of testing	Expected result	Result
Register account	Visit the register pages and input details	After registering, the correct inputted users details appear in firestore	Passed
Register an account with the same email or username	Input the same email or username as a previous user	Should return an error	Passed

Task: Login User:

Problem	Method of testing	Expected result	Result
Login to account	Visit the Login register page and input details	Checks for the users username in the backend and routes to the users profile	Passed
Wrong Details	Input wrong detail in the login columns	Should return an error	Passed

Task: Home Page:

Problem	Method of testing	Expected result	Result
Homepage button	Visit the home page before login and after login	The button should route to the register page before login and user profile after login	Passed

Task: User Profile:

Problem	Method of testing	Expected result	Result
Display picture upload and change	Visit the logged users profile page and edit display	Upload and picture and change it	Passed

Edit button	Clicking edit button to edit component and viewing them after submitting	Changes the details to the new edited details and also updates the firebase backend	Passed

Task: Projects:

Problem	Method of testing	Expected result	Result
Upload project	Clicking the upload project button from the navbar then creating a project	Project is created and visible on the database	Passed

Completed after third sprint:

Task: View User:

Problem	Method of testing	Expected result	Result
View a user that you are not logged in as	Visit "/otherUserHandle"	Correct user details are displayed with all edit buttons hidden	Passed

Task: Privacy Settings:

Problem	Method of testing	Expected result	Result
Change the privacy configuration	Change to private and checking if the private user preview can be displayed by visiting "/userhandle"	Should not be able to view their page	Passed

Task: Profiles Page:

Problem	Method of testing	Expected result	Result
Profile displayed after user registered	Visit the profile page and look for the user that had just registered	The user profile display name, username, display Picture and tags show	Passed
Search by username	Using the search bar to look for a profile	Show the user profile whose username was searched	Passed
Search by display name	Using the search bar to look for a profile	Show the user profile whose display name was searched	Passed
Search by skills	Using the search bar to look for profiles	Show profiles who has the skills that are searched	Passed
Visit Profile button	Clicking the button to visit a random user's profile page	Route to the users profile page	Passed

Task: User Profile:

Can add/edit information in each component (about me, user info, education, skills and experience	Add and edit each component in profile then re-render page to see changes	Details added, once submitted are displayed are page is refreshed	About me: Passed Contact info: Passed

			Display Picture: Passed Education: Passed Experience: Passed

Task: Projects:

Upload a project	Login in and visit the "upload project" page. Enter a title and description. Select a collection of files and click submit. Add a card, inputting the relevant information Edit card and check the "files to associate with card"	Once submitted, the user is taken to "/projectID" The correct details are displayed. Editing a card shows the uploaded files.	Passed
Edit a project	Edit a project's title and description, submit and after submission, refresh page	The updated project information is displayed	Passed
Delete a project	Click the delete button on a project then view user's profile as well as revisit direct project link	The project can not be seen and visiting the old url shows nothing	Passed
Add a project card	Click add project card. Enter card information Submit and then reload after submission	Correct information entered in card is displayed	Passed
Edit project card	Edit a cards information, submit and after submission, refresh page	Updated information entered in card is displayed	Passed
Assign files to card	Click the edit button on a project card. Choose files to assign to card Submit and then reload	Assigned files can be viewed by clicked the drop down button on a card	Passed
Choose a image for a project card	Click the edit button on a project card. Upload an image. Submit and reload	Uploaded image is shown on card	Passed
Delete a project card	Click delete button on a project card and refresh page	Project card is no longer seen and files assigned to this card are now able to be assigned to other cards	Passed
Rearrange project cards	Drag and drop cards to rearrange. Refresh page afterwards	After page refresh, cards are in the updated order	Passed
Upload files to an existing project	Click "add files to project". Upload files. Edit a card and check "files to associate with card"	Uploaded files can be seen in the"files to associate with card" drop down	Passed
Download project files	Click the download button next to a file	File downloads to computer or opens in new tab	Passed

Deployment Pipeline

1. A new request is reviewed by and approved by another team member who runs user tests on added/updated features.
2. The request is merged into master
3. In the console run "npm build" followed by "firebase deploy"

Strengths of the ePortfolio

We believe that the project section is implemented really well and has a lot of useful functionality to enable a user to display, share and download their projects. It is not limited to any particular file types which allows users to show off any sort of project that they're proud of, whether it is a collection of photos, source code or even videos. Within the edit project functionality, the ordering of project cards via 'drag-and-drop' is a particularly nice feature as it is intuitive and allows greater user interaction with the web app.

We are proud of the emphasis that we placed on security throughout the development of the ePortfolio. The privacy and security aspects of the project is another key area which we think is quite strong. The implementation of tokens to verify authentication gives a solid basis of security throughout the project which is then built on with the application of backend routes, which limits access to sensitive areas of user's data. Further, the privacy functionality of user's profiles allows users to limit whether anyone can see their profile, which is useful if they want their ePortfolio to serve a more personal versus public role.

We are pleased to show off the '/profilespage' functionality of the web app, which we implemented to extend from the client's initial requirements. It displays all of the users of the ePortfolio, showing some brief information including their 'tags', which is used to display particular skills that they have. We believe that the profiles page can give a newcomer to the website a quick and useful insight into the functionality and strengths of our web app. Further, this system of tags allows a user of the ePortfolio to search from the profiles page to display users who have certain skill tags, allowing, for example, all users who are proficient in Javascript to be displayed and then have their profile visited. This can be extended to the use case of a potential employer, who is looking to recruit people with certain skills. From this perspective, it is clear that the profiles page and search functionality greatly extends the scope of possible uses for the ePortfolio and we are proud to be able to present it.