BULLETPROOF
MISSION CRITICAL CLOUD

WEEKLY PLANNER APPLICATION

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Last Revised Date	Version	Authors	Notes
21/03/2018	1.0	Kells, Wood, Yu	First draft
23/03/2018	1.1	Kells	Combined proposal documentation
27/03/2018	1.2	Kells, Wood, Yu	Minor updates
28/03/2018	1.3	Kells, Wood, Yu	Added executive summary
29/03/2018	1.4	Kells	Minor updates

EXECUTIVE SUMMARY

The goal of our project is to digitally recreate a highly functional consulting table for Bulletproof, which they will use to track consulting time. Our solution will be a cloud-based web application that is viewable from a web browser on multiple devices.

This application will include features that support the addition and manipulation of team members weekly work allocation and provide high-level information to Bulletproof management and staff to assist existing business processes. We have twenty-four weeks to plan, design, code and implement this web application and present to AUT.

Our chosen methodology to complete this project is Agile, adopting practices and artefacts from the Scrum framework. We will use Jira, Google Drive and TeamGannt to assist in monitoring and record our progress.

Attached to this project are key risks. One risk is the poor adoption of our solution. We will minimise this risk by seeking regular client feedback on a schedule that fits our chosen methodology. Another key risk is an underestimation of the project workload, which we will reduce by focussing on delivering our solution in short, measurable increments with a goal of delivering the MVP by the end of sprint eight.

We have estimated the total cost of this product to be $27,246, which includes the wages of all stakeholders, the cost of courses undertaken to upskill and the cost of hosting our web application.

1. TERMS OF REFERENCE

Project purpose
The goal of the project is to create a highly functional web app, that provides a high-level overview of work allocations to the Bulletproof team.

The context of the project
Bulletproof is a cloud consulting firm, which utilizes both the Amazon Web Services (AWS) and Microsoft Azure cloud computing platforms to assemble secure, best practice IT solutions and deployments. Bulletproof use project management tools, such as Jira, Trello and Harvest to help them manage a diverse portfolio of different projects.

The problem, need or opportunity
Bulletproof currently use the Jira project management platform to track tasks attached to ongoing projects. They need a high-level overview of consulting work at a glance, which due to the depth of features and inaccessibility of Jira, is currently better supplied by a physical whiteboard update weekly on site. Consultants working offsite do not have access to this high-level overview, and a physical whiteboard is impractical to maintain at multiple sites as bulletproof expands.

2. RATIONALE FOR THE PROJECT

Why is this project needed
Bulletproof has been unable to identify a software product on the market that meets the functionality and usability requirements to replace their physical system. This project is needed to produce a web application that provides overview of all Bulletproof team members and the clients they are working on Monday through Friday, as well as a client table that displays active clients and the associated Bulletproof team members.

Existing system or area of inquiry undertaken
Our team has researched some of the most popular scheduling and project management tools, including Asana, Jira and Mavenlink. This research has helped us identify an opportunity to develop a lightweight, accessible, tailored solution that gives a high-level weekly overview of work in a team environment.

Project risks
1. Underestimation and poor time management. As an inexperienced team, we may underestimate the work involved in developing the solution outlined in the project scope.

2. Poor product adoption. There is a risk that our solution will not replace their physical whiteboard system if it is not as usable or as practical.
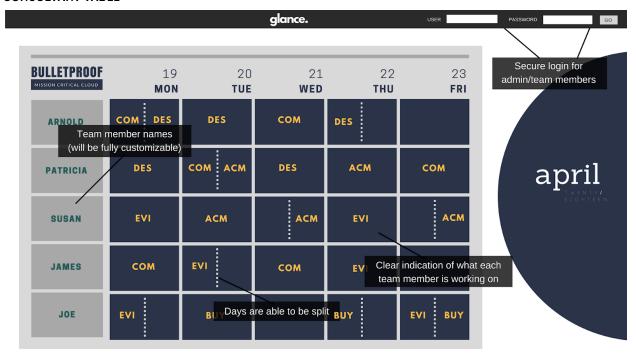
3. SCOPE AND OBJECTIVES

Scope statement
The project will consist of creating a web application built on the AWS cloud platform. The application will be viewable from a pc, tablet or mobile device. It will display a consultant table that is separated by days in the week and Bulletproof consultants. This table will show who will work on which project, on each day. Consultants can log into the app and update their schedule throughout the week. The team lead can log in and change the consulting table for all team members. Using information added to the consultants table, a client table will generated/updated on the same page, that shows which consultants are working on which projects.
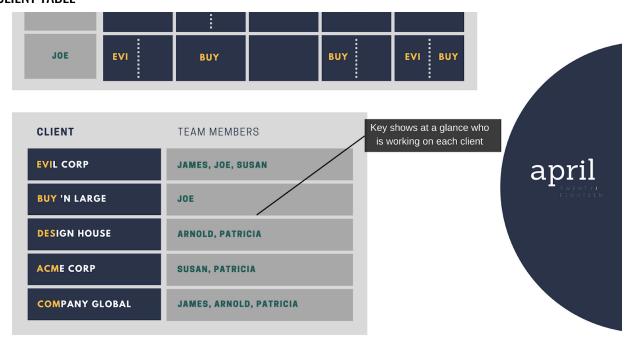
Initial product design

CONSULTANT TABLE

CLIENT TABLE

High - level requirements

Functional

- The app shall display functional consulting timetable displaying days in the week, the name of consultants, and projects being worked on.
- The app shall display a client table with relevant information.
- The app shall allow a user to create a new profile.
- The app shall allow users to log in.
- The app shall allow a logged team member to adjust their consulting timetable
- The app shall allow the timetable admin to adjust team member's consulting timetable
- The app shall allow the timetable admin to add and remove clients
- The app shall allow the timetable admin to add and remove team members

Non-functional

- The app should be accessible by any mobile phone.
- The app should be accessible by any tablets.
- The app should be hosted by Jira.
- User details should be accessible to the administrator and the user only.
- The app should be fully compatible with Ubuntu.

Envisaged final solution
Our envisaged final solution will be a deployed web application, viewable through a browser on a pc, mobile and tablet. This application will display a two-dimensional consulting timetable, showing what project each consultant is working on for each day of the week. It will also display a project table, which shows who is working on which projects for the given week. Bulletproof team members can interact with the application user interface to update their consulting schedule, while a team lead can also add new team members and projects to the to the web application. This solution will give all members of the bulletproof team a high-level overview of consulting work for each week, assisting in the successful management of multiple ongoing projects.

Key milestones
- The web application will be able to display a consulting table.
- The web application will be editable.
- The web application will be able to generate client table.
- The web application will have encrypted login functionality.
- The web application will be optimized for mobile use.

4. PROJECT METHOD OR APPROACH

Describe the chosen developmental approach or methodology
We have chosen to adopt Agile (Swaber & Sutherland, 2017) as our development methodology over existing alternatives. The waterfall methodology we considered, as its emphasis on thorough planning and tight control over the project lifecycle would benefit an inexperienced team. However, we ultimately decided against it, as meeting with our client helped us identify the need for flexible requirements, that would evolve throughout the project lifecycle. We decided on a Agile methodology to help minimize the risk that the developed solution isn't a suitable replacement for the existing system, and because of the potential value of a highly iterative development style when implementing a practical user interface. This methodology also helps us incorporate regular client feedback into the project. We have chosen to adopt the Scrum approach to Agile, because of the familiarity of the processes to the team and and so we could benefit from monitored timed iterations which could help us identify problems early on in the project.

5. PROJECT PLAN

Gantt Chart
*See attached

Plan processes and activities
- Work on the project will be completed in 1 and 2 week-long sprints.
- The work to be completed each sprint will be allocated from a Product Backlog, which will be maintained throughout the project timeframe. Items in the Product Backlog will have an estimated work value, a priority and unit tests.
- Before the commence of a sprint, the team will have a meeting. We will collectively prune the Product backlog and produce a Sprint Planning document which will summarise the sprint goals.
- After the completion of a sprint, the team will meet for a Sprint Review. The team will share all code, documentation and design work completed during that sprint, and will document this in a sprint review document.
- After a Sprint Review, a Sprint Retrospective will be written up to document the successes and failures of the previous sprint.
- The team will have a Scrum Master, who is responsible for ensuring the team is following the team methodology and practices.

- The team will have a Product Owner, who is responsible for maintaining the backlog and collecting client/user feedback.
- The team will use Jira as a tool for sprint management, to maintain the Product Backlog, Sprint Backlog and to produce Burndown Charts to help us monitor progress.
- The team will use TeamGantt as a software tool to maintain a Gantt chart to assist in monitoring progress.

6. SKILLS ANALYSIS

Skill matrix

Skills Team Members	HTML/CSS	Linux	Javascript	PHP	SQL	AWS
Tristan Kells	Currently studying and completed a previous online course	No linux experience. Plan to complete Linux academy course.	No experience. Currently studying.	No experience. Currently studying.	Build simple databases for mobile application.	No experience using AWS. Will learn during project upskill
Daniel Wood	Basic web development knowledge. Built several simple HTML/CSS websites	No linux experience. Plan to complete Linux academy course.	Limited Javascript knowledge. Know the fundamentals. Currently studying.	Limited PHP knowledge. Currently studying.	Experience with building simple database and input commands. Currently studying.	Preparation for AWS certification. No prior experience. Currently studying.
Junha Yu	Experience of building a few websites	Not very competent. Plan to complete Linux academy course.	Efficient DOM manipulation. Experience of building a booking system. Knowledge of ajax, jquery	Experience of building a booking system	Experience of building a booking system that has more than 10 tables	Minimum Knowledge. Plan to prepare for a AWS certification exam throughout the year

7. COST ESTIMATE

Cost Estimate for Bulletproof Weekly Planner App					
Wages					
Name	Role	Salary	Hourly Rate	Hours	Total
Tristan Kells	Team Lead	$86,000.00	$41.35	240	$9,924.00
Dan Wood	Team Member	$60,000.00	$28.85	240	$6,924.00
Junha Yu	Team Member	$60,000.00	$28.85	240	$6,924.00
Kenneth Johnson	Mentor	-	$142.00	20	$2,840.00
Bulletproof	Product Owner	-	-	-	-
				Total	**$26,612.00**
Resources Required					
Description	Cost	Copies			Total
AWS Certification	$204.70	3			$614.10
Web Hosting	$20.00	1			$20.00
				Total	**$634.10**
Total Cost					
Wages		$26,612.00			
Resources Required		$634.10			
Total		**$27,246.10**			

REFERENCES

Swaber, K., & Sutherland, J. (2017) *The Scrum Guide: The Definitive Guide to Scrum: The Rules of the Game*. Retrieved March 15, 2018, from https://www.scrumguides.org/docs/scrumguide/v2017/2017-Scrum-Guide-US.pdf

Auckland University of Technology
Bachelor of Computer & Information Sciences

Bulletproof Research & Development Project

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