University of Sunderland

COLLEN M RANNYENA

Product development

STUDENT NO
189109257

WebAndVetted

COLLEN RANNYENA
[Email address]

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PRACTITIONER STATEMENT

INTRODUCTION

The Sunderland Software City is a client with the goal of encouraging and supporting the growth of software industry since the year of establishment 2009 in North East of England. It develops a sustainable software industry within England for both public, private and educational sectors furthermore driving towards the development of world class software businesses. Sunderland Software City inspires new businesses driven by innovative software solutions (Software enterprises). The client is looking for a service that includes the design and development of an interactive website and call centre solution which would be a new software business venture provisionally called WebandVetted. The solution aims to provide referral to freelance web developers, small to medium sized enterprises and Voluntary sector organisations that have been facing constraints.

CET333 Product Development
Requirements Specification Document

Name: COLLEN RANNYENA Programme: CSE

Overview

The Sunderland Software City is a client with the goal of encouraging and supporting the growth of software industry since the year of establishment 2009 in North East of England. It develops a sustainable software industry within England for both public, private and educational sectors furthermore driving towards the development of world class software businesses. Sunderland Software City inspires new businesses driven by innovative software solutions (Software enterprises). The client is looking for a service that includes the design and development of an interactive website and call centre solution which would be a new software business venture provisionally called WebandVetted. The solution aims to provide referral to freelance web developers, small to medium sized enterprises and Voluntary sector organisations that have been facing constraints. The constraints that have been met by these organisations are having to not understand what is involved, developers providing short-lived solutions with less understanding of the user's preference, poor product and over-inflated development costs that puts enterprises at risk of running out of business.

Product to be delivered to client

The proposed solution is an enterprise web directory that gives approved web development services that are also referred between freelance developers, Voluntary sector organisations and Small to Medium sized enterprises.

Client requirements

Functional:

- The system must enable users to Access and View services provided by WebandVetted
- The system must enable users to Accept and Reject applicants
- The system must enable users to Keep track of Reviews and ratings
- The system must enable users to Fill in and submit application forms for membership
- The system must enable users to Keep track of application progress
- The system must enable users to Subscribe for membership
- The system must enable users to Post Portfolio
- The system must enable users to View reviews and ratings
- The system must enable users to Create an Account
- The system must enable users to Login
- The system must enable users to Search for Freelancers
- The system must enable users to Post
- The system must enable users to View Freelancers and small web enterprises by their ratings
- The system must enable users to Integrate with social media platforms

Non-Functional

- Maintainable on a periodic basis
- Interoperability
- Availability and Reliability

Wish List

- Display time and date

Constraints

The limitations foreseen are:

- Time; The project will be done together with other modules undertaken
- Distance and having limited access to resources

Resources

Programming

- HTML5+CSS3+JAVA
- PHP VERSION 5.4.19
- AngularJS 5

Software

- XAMPP VERSION 3.2.1
- Microsoft Office (Excel, Word, Visio, Project, Power Point)

Hardware Minimum Requirements

- Processor: Quad core Processor 2.2GHz
- RAM 4GB
- Disk Space 1TB

Evaluation

Every development phase of the portfolio will go through assessment as a way of quality check control. The development phases are inter-dependent on one another, meaning for every initial development stage completed results in the beginning of a new task. To check whether the requirements have been met test plans and surveys will be conducted.

Test plans will be carried out by the developer who will be providing input to the system and having output,the actual output will be compared to the expected output .If it so happens that the results differ modifications will be done.

A random selected group of users will do a survey to the system just to check if it is easy to navigate through it, whether the website can run in different platforms, has content language that is understandable and lastly give feedback about the system.

Client Sign-off

Signature **Date** 01/03/19

CET333 Product Development – Schedule of Tasks

Task	Hours	Estimated Start-Date	Estimated End Date	Actual Start Date	Actual End Date	Deliverable
REQUIREMENTS PLANNING	**18**					
Defining the Problem Domain	4	27/02/2019	1/03/2019	27/02/2019	28/02/2019	Objective and project scope
Scheduling and Preparation for the Client Meeting	4	28/02/2019	28/02/2019	28/02/2019	28/02/2019	Business Pitch with Power point presentation
Interviewing the Client	4	28/02/2019	28/02/2019	28/02/2019	29/02/2019	Notes
Analysis of client Requirements	4	28/02/2019	28/02/2019	29/02/2019	29/02/2019	Requirements Specification Document
Consultation with Client And Signing Off Requirements	2	03/03/2019	03/03/2019	1/03/2019	1/03/2019	Approved and Sign-off Requirements Specification Document
PLANNING	**11**					
Schedule Preparation	5	7/03/2019	7/03/2019	04/03/2019	04/03/2019	Schedule
Preparation for Practitioner Statement	6	7/03/2019	7/03/2019	08/03/2019	12/03/2019	Practitioner
DESIGN	**31**					
Web Logic Plan	10	10/03/2019	10/03/2019	12/03/2019	15/03/2019	Site maps,MVC Model, Wireframe
Unified Modeling Language , Diagram Design	10	20/03/2019	20/03/2019	18/03/2019	1/04/2019	Activity Diagram, Class Diagrams, Sequence Diagram, Use case, Requirements Diagram
Designing The Database Model	11	20/03/2019	22/03/2019	10/05/2019	11/05/2019	Entity Relationship Model (ERD)
DEVELOPMENT	**61**					
User interface Development	25	22/03/2019	05/04/2019	10/05/2019	18/05/2019	Website Pages that are responsive
Table Schema Development	6	05/04/2019	05/04/2019	19/05/2019	19/05/2019	Table Schemas
System Back-end development	30	05/04/2019	10/04/2019	19/05/2019	22/05/2019	System
TESTING	**13**					
System Test and Quality Assurance	12	10/04/2019	11/04/2019	21/05/2019	23/05/2019	Results Document
Evaluation of the System	1	14/05/2019	14/05/2019	23/05/2019	23/05/2019	Evaluation Sheet
DOCUMENTATION	**15**					
User Manual Guide	5	14/05/2019	14/05/2019	19/05/05/2019	19/05/2019	User Manual
Document the Processes and Findings of the System	10	14/05/2019	15/05/2019	19/05/2019	22/05/2019	Product Documentation
DEPLOY	**11**					
Set up the Data Base to Production site	5	17/05/2019	17/05/2019	21/05/2019	21/05/2019	Production Data Base
Set up Website to Hosting Site	5	17/05/2019	17/05/2019	22/05/2019	22/05/2019	Website
Client Hand-Over	1	17/05/2019	17/05/2019	23/05/2019	23/05/2019	
	160					

CET333 Product Development: Client Contact Record Sheet

Business Pitch – Participation

Comments:

- Participated in a business pitch to convince the client to contract my company to develop the WebAndVetted technology platform or aspects of it.
- A meeting was set to address the requirements specification document to the client.

Client Signature:  Date: 22/02/19

Student Signature:  Date: 22/02/19

Scheduled Client Meeting 1: Meeting Record

Progress & Feedback

- The requirements specification document was discussed with the client.
- The requirements specification document was drafted.

Actions:

- To draft the requirements specification document.

Client Signature: Date:1/03/2019

Student Signature:  Date:1/03/2019

Scheduled Client Meeting 2: Meeting Record

Progress & Feedback

- An agreement was made about the requirements specification document and it was signed off.

Actions:

- To start project schedule and practitioner statement.

Client Signature:  Date:6/03/2019

Student Signature:  Date:6/03/2019

PERSONA

KEY CHARACTERISTICS
Excellent communication skills
Goal Oriented

Bio

I'm **Kevin Shepherds**. I'm a designer who codes. I've worked internationally in UK, in-house and remotely on projects for leading brands, agencies, startups and charities. I care deeply about creating world-class, useful and beautiful products that help people and make a difference. I like to be involved at different stages of a digital project, from the seed of the idea, through to sketches, design and even the front-end and WordPress build. As a freelancer, this means I can jump in at any stage of a project, or take on the whole project, from design to build.

Goals

To become truly full stack and understand the nuances of the front-end.

Write a book on JavaScript.

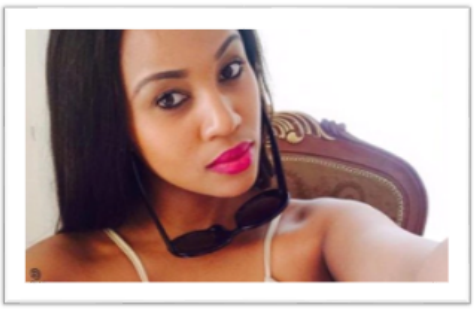
Make a personal project trend

Frustrations

Unrealistic demands and deadlines,
The inevitable, torturous payment follow-up,
Not having a fulltime job, where you wake up every morning and disappear from the face of the earth until evening

GRACE .T. SMITH
Managing Director

CLIENT



"I need a trusted and well thought of web developer without having to question their skills"

BIO

Managing Director. Grace is the **MD** of **Uber-Life Travels**, where she manages the company's fast-growing business in UK and leads a global team of more than 100 employees. Mrs. Smith was previously **CEO** of Expedia, which she grew into one of the world's largest online travel companies. She's seeking to promote her traveling agency through Website, ads and email marketing. Unreliable web developers have put her business under constraint financially due to providing web services that don't meet her desired requirements.

GOALS

Keep her Organisation on track and defeat competitors.

Find a trust worthy and affordable web developer

FRUSTRATIONS

Inflated prices by web developing companies and freelancers

APPROACH

Firstly, two methodologies were taken into consideration (Object-Oriented Methodology and Feature Driven development -Agile methodology) within the practitioner statement right before choosing RUP. The appreciation of RUP as methodology was because of its manner of assigning tasks and responsibilities on Microsoft Project which was actually a disciplined approach. Since the practitioner statement has to be updated constantly to reflect on proven best practices evolving and past project experience encountered, RUP was chosen since it requires constant client communication. In addition, the methodology ensures the project outcomes are of high quality also clients requirements are met within a predictable time scale and budget strain avoided. The clarified statements from above give

guide to the practitioner to be in line with what the client is to wait for at the end of the project together with the end date of the project.

METHODOLOGY

Four development phases makeup RUP which are inception, elaboration, construction and transition –RUP as an object-oriented methodology.

Inception

The thought for the project is expressed here. The developer decides whether the task merits seeking after or is it worth doing and what assets of development will be required. The practitioner understood the problem domain provided by the assignment portfolio furthermore brainstorming together with document analysis and interviewing the client to gather up a good number of requirements that were outlined accordingly to meet both functional and non-functional requirements of the web directory .The inception phase came to an end right after a project plan was done and also signing off requirements specification document giving a kick start to the next development stage that is Elaboration.

Elaborate

The projects design and required assets are additionally assessed. The developer considers potential systems related to the proposed one and time together with cost of development**.** A focus on analysing and designing the basic architecture of the system requires specific tools, some tools that the practitioner chose are MySQL for the database design. Furthermore, a self-assessment test was done on the practitioner to view the progress status of the project however the results came negative as it showed amber flags and the client was informed about it. Microsoft Office 2016 updated project schedules with new tasks. The practitioner statement was behind schedule hence making time a constraint to the project even though it was capable of drawing a visualization of the working system.

Construction

For this phase the system is created and finished. The product is planned, composed, and tried. The coding part was one of the aspects of the development that the designer focused much on. Before coding was initialized Unified Modelling Language was used to create use cases that partitioned user roles in the system and demonstrable prototypes to the client. Further tools of development by the practitioner were HTML, Cascading Style Sheets, PhP and Java scripts that developed the website interface. Whenever the construction phase was in progress certain constraints were encountered majority being that software tools not being up to date another one being ‘unable and having a delay to update the software tools due to lack of privileged user accounts on the school computer labs’ the IT department was responsible.

Transition

Here, the last stage deals with releasing the project to the public right after final adjustments and alterations are done which were based on client feedback. Before handing over the project the practitioner will tests the framework by checking the requirement document done between him and the client at the Inception Phase of the RUP. The test plan is carried out for the purpose being system quality assurance .Having to do the transition phase was a problem because the connection string to the database using the DELL desktop work station was a problem as xammp ports collided with those of oracle tools installed within the machine however it was successful with an HP laptop.A presentation to the client was done and the requirements met were demonstrated .

LANGUAGE AND TOOLS USED FOR DEVELOPMENT OF THE SYSTEM

PHP was used for developing WebandVetted together with HTML, Hyper Text Mark-up Language is a standard language for developing website pages in addition PHP being a pre-processor for Hypertext. Cascading style sheets were used to make the back bone of the webpage.

When running the webpages, Google Chrome, Internet explorer, Fire fox served as platforms for executing web pages.

DATABASES

For proving outstanding Database performance MySQL was used as an open source database. Majority of developers prefer it reasons being that it is reliable and gives ease of use. Research proves that it is the most reliable database when it comes to security and flexibility for web application when using PHP.

SERVER

When using a server that can operate in multiple servers Apache web server was used reason being it was an open source ,in addition it had capabilities of operating in cross platforms.The 2.0 version was used further more it supported no-Unix OS's for example Windows and OS/2.

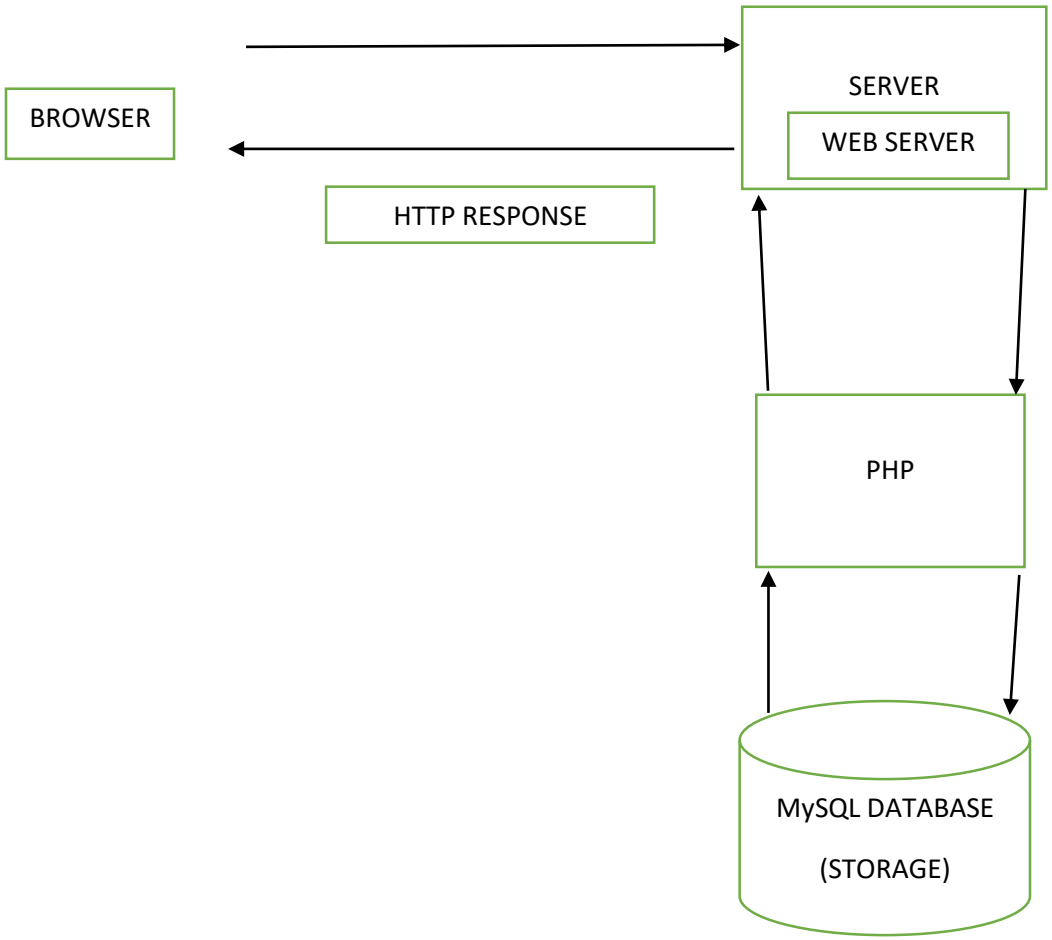
UNIFIED MODELLING LANGUAGE (UML)

The modelling language was used to design the system. A virtualization of the system was elaborated by UML designs within the practitioner. Diagrams like USE CASE, ER diagram, Sequence diagrams and Activity diagrams.

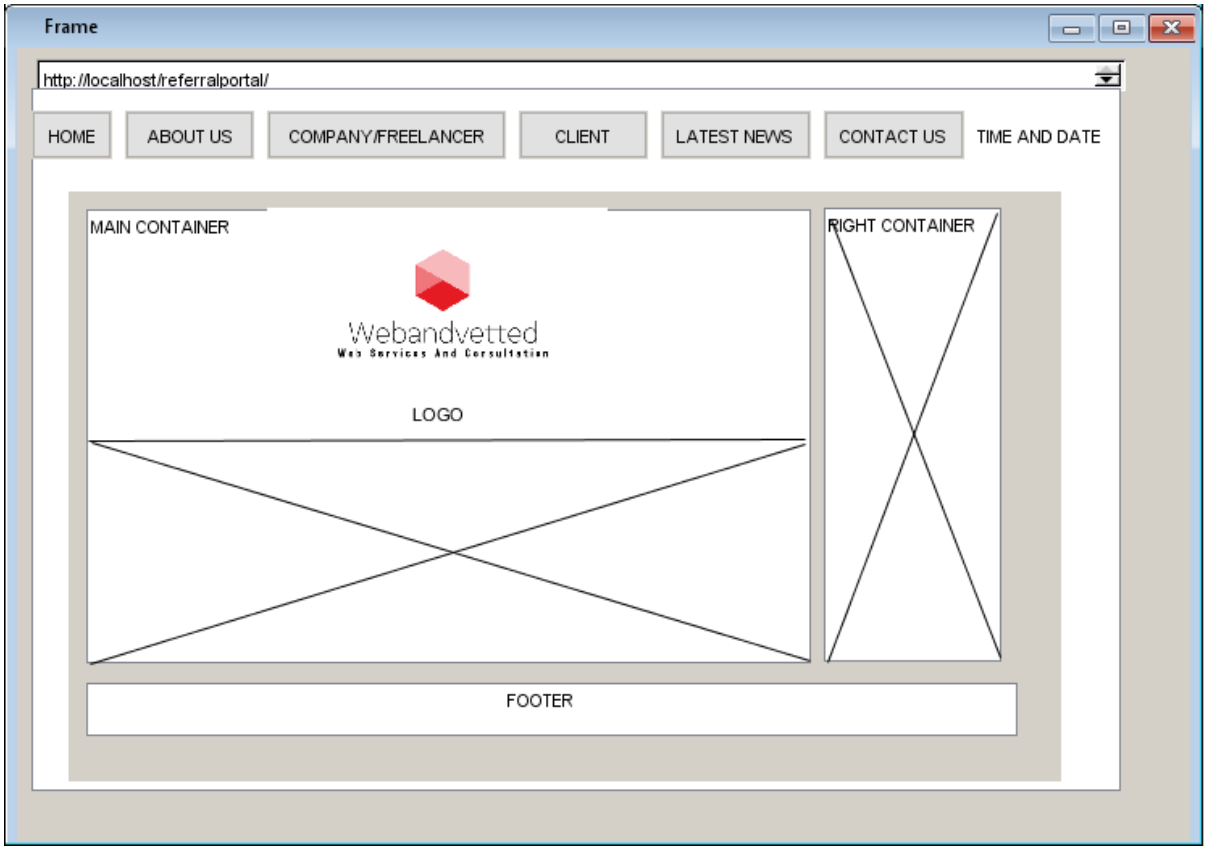
CONCLUSION

In this stage the engineer concentrated more on coding part of the undertaking. Right off the bat, use cases were partitioned into sensible fragments and make demonstrate able models to the customer. The professional devices like Cascading Style Sheets and JavaScript to create different parts and highlights like site interfaces. In this stage the specialist experienced difficulties of not having update programming instruments, to get refreshed adaptations of these apparatuses took some time which ruined movement. The refreshed instruments were utilized to make a model that gave the customer a vibe of the framework.

ARCHITECTURE MODEL


BROWSER
SERVER
WEB SERVER
HTTP RESPONSE
PHP
MySQL DATABASE
(STORAGE)

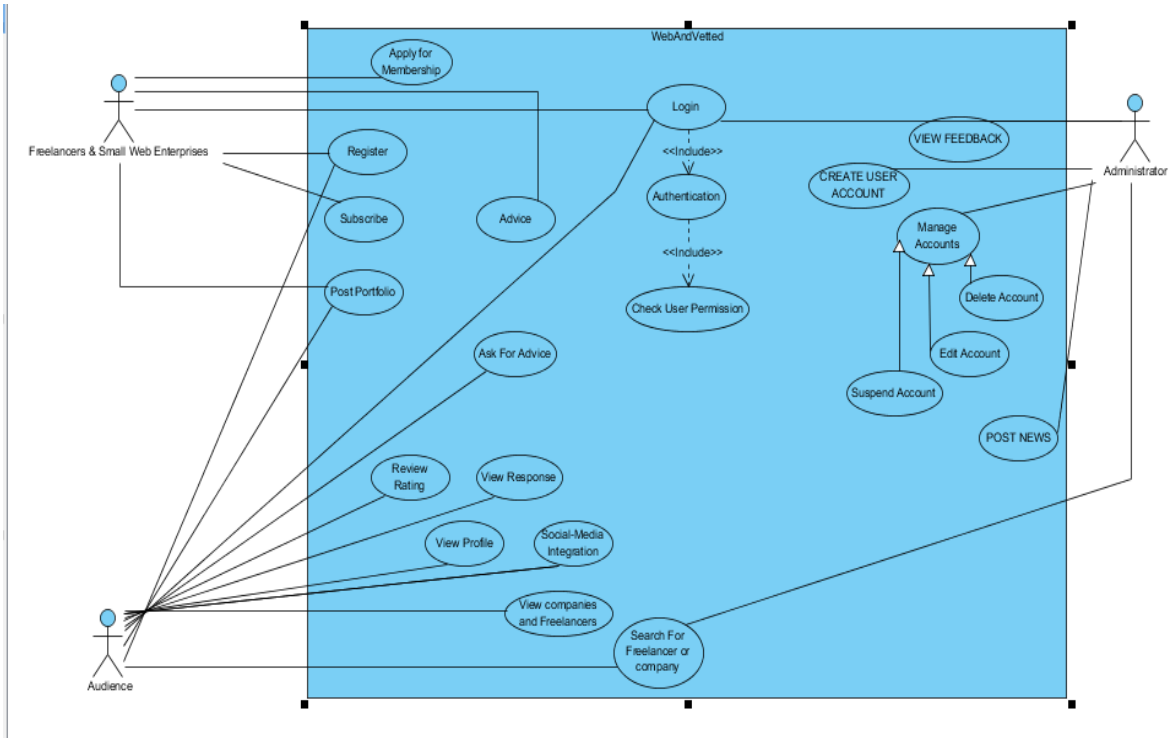
WIREFRAME


Frame
http://localhost/referralportal/
HOME
ABOUT US
COMPANY/FREELANCER
CLIENT
LATEST NEWS
CONTACT US
TIME AND DATE
MAIN CONTAINER
Webandvetted
Web Services And Consultation
LOGO
RIGHT CONTAINER
FOOTER

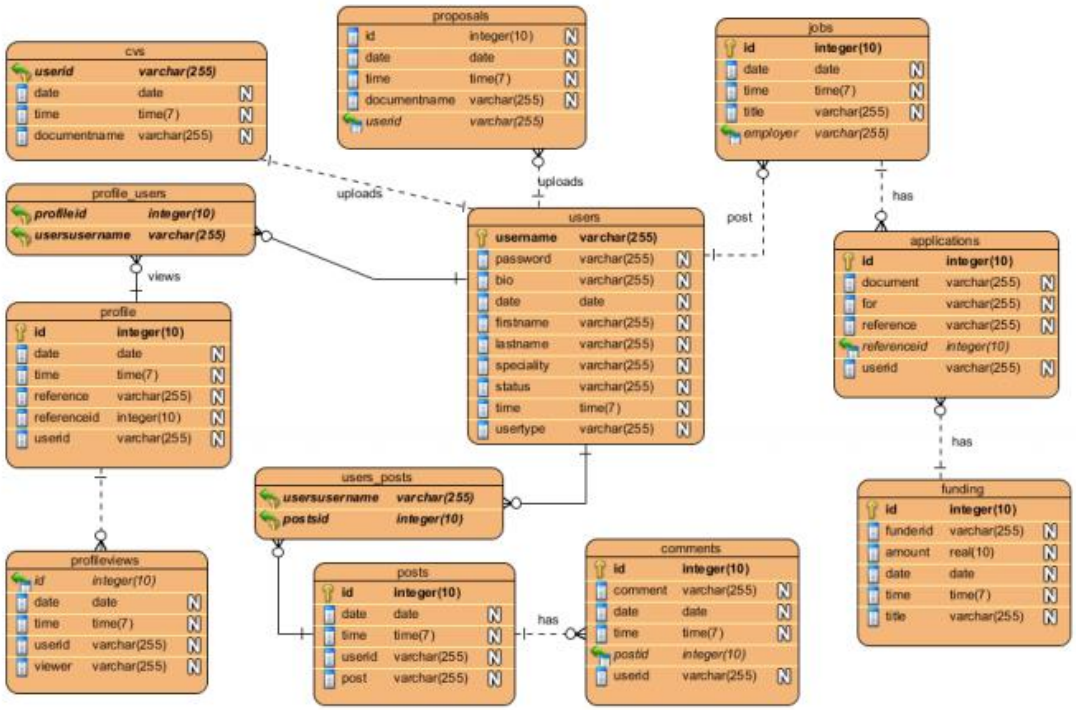
SITEMAP


Audience(INDEX)
HOME
ABOUT US
REG/LOGIN
SOCIAL MEDIA
LOGIN TYPE
USER
FREELANCER / COMPANY
ADMIN
SEARCH
TRACK PROGRESS
VIEW COMPANY PROFILE
POST PORTFOLIO
POST & UPDATE
SEARCH
COMPANY PROFILE
MANAGE WEBSITE
ADD/REMOVE USERS
PRODUCE REPORT
MANAGE COMPANY/FREELANCER
MANAGE CLIENTS

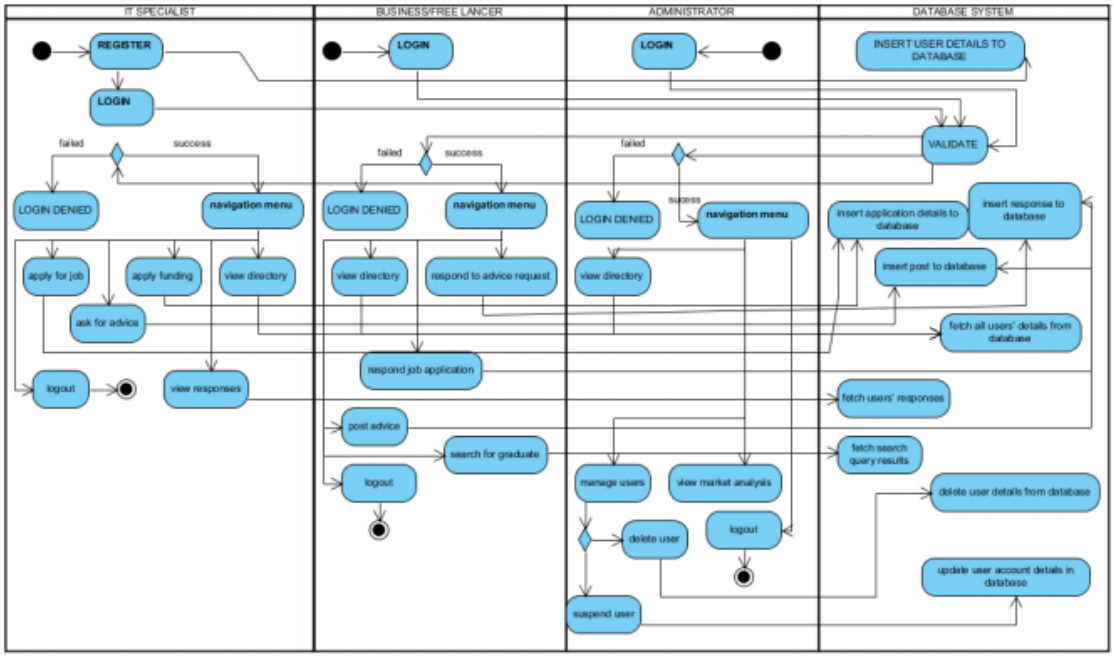
USECASE


WebAndVetted
Apply for Membership
Freelancers & Small Web Enterprises
Register
Subscribe
Post Portfolio
Advice
Login
<<Include>>
Authentication
<<Include>>
Check User Permission
Ask For Advice
Review Rating
View Response
View Profile
Social-Media Integration
View companies and Freelancers
Search For Freelancer or company
Audience
Administrator
VIEW FEEDBACK
CREATE USER ACCOUNT
Manage Accounts
Delete Account
Edit Account
Suspend Account
POST NEWS

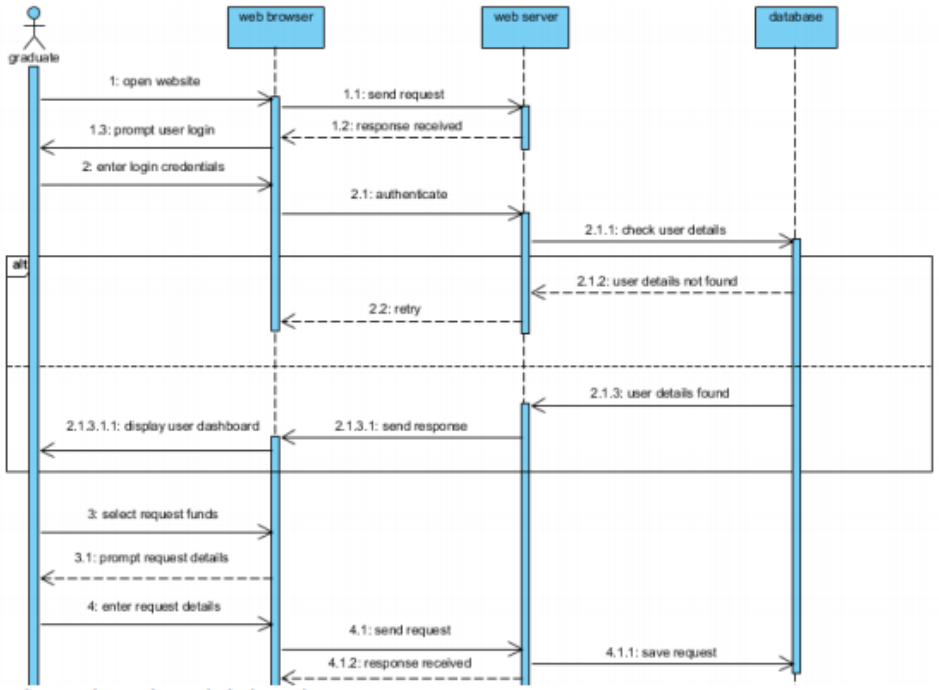
ENTITY RELATIONSHIP DIAGRAM



ACTIVITY DIAGRAM



SEQUENCE DIAGRAM



Sequence diagram showing the funding application activity

TESTING AND EVALUATION

For the testing and evaluation of the system three processes had to be carried out which are; initially testing the protocol, test results and evaluation done by the client.

TESTING THE PROTOCOL AND TESTING TOOLS

When checking the functionality of the website testing was carried out for quality assurance reasons. The functionality of the system has to be in full relationship with the one written and signed off in the client's requirements plan by the client. Also testing is carried out as a way of checking customer satisfaction with the end product presented to them. A DELL OptiPlex 3060 desktop computer was used to carry out the test, using Windows 10 operating system 64bit.

For interoperability testing an HP laptop and Acer were used to check the non-functional requirements. Furthermore an individual with computing skills was given the prototype to carry out a test on it.

TESTING APPROACH

Two testing approaches are used to verify that the website managed to meet its requirements, the first one being Black box and the other one being Boundary Value Analysis.

Black box testing approach was used to test the very most important features of the system far most important the logical structure. Equivalence partitioning is brought by this test approach, whereby the value of test cases reduces reason being it partitions the data involved from which test cases can be derivative.

For the next testing approach, Boundary value analysis (BVA) is based on testing at the boundaries between partitions. Here we have both valid boundaries (in the valid partitions), invalid boundaries (in the invalid partitions), minimum, maximum, just inside/outside boundaries, error values and typical values.

Here are the advantages of using Black box approach on the website; The test box brought unprejudiced results and they were balanced reason being that both the developer and tester are independent of one another. Functional knowledge within the website doesn't have to be known by the tester. The disadvantage of the approach was that it is not always clear and it is really difficult to design the test cases for the solid fact that we have no clear functional specifications. During the test process it is difficult to see unidentified paths. Another disadvantage that occurred when doing this testing approach was that majority of tests performed ended up being repeated by the programmer.

Interior logic structure of the website was comprehensively examined, in short a White box test was carried out. The White box testing procedures are Control Flow Testing and Branch Testing, when we talk about Control Flow Testing I mean a structural testing strategy that uses the program's control flow as a model. Control-flow testing techniques are based on judiciously selecting a set of test paths through the program. The set of paths chosen is used to achieve a certain measure of testing thoroughness. E.g., pick enough paths to assure that every source

statement is executed as least once. Branching testing has the impartial to test every possibility (true or false) on all control declaration which also contains compound decisions

White box testing has the following advantages; automated test cases, any new implements can be done by programmers like example the analysis reason being that the developers extremely describe any new implementation. Hidden mistakes are exposed making it good for code optimization. White box has certain disadvantages one of them caused by frequent update of test scripts this brings all the work to the programmer because he has to frequently update test scripts. In some cases, conditions might not be tested as it is not realistic to test every single one. It would be ideal to use both white box and black box to test if the system meets the functional and non-functional requirements.

TEST PLAN

TESTING RESULTS OBTAINED

Logging in

Test suite ID	White box testing
Test Case ID	1.Logging in
Test Case Summary	Testing if the user can have access to login into the system.
Related Requirement	Ability to login to the system
Prerequisites	Before logging in the user has to be registered and approved by the administrator
Test Procedure	1.Fill in the login form with credentials of an unregistered user. 2.Will the website give access to that unregistered user? 3.Fill the login form with details of a registered user and submit 4.Did a display message pop up or notify that the login was successful ?
Data Testing	MySQL database
Results that were Expected	Registered users with privileged rights must login whereas Unregistered users fail to login and be notified to create an account first
The Actual Results	Registered users with privileged rights must login whereas Unregistered users fail to login, directed to login page -be notified to create an account
STATUS	PASS
REMAKRS	SUCCESSFUL
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	WHITE BOX TESTING
TEST CASE ID	1.LOGIN

REGISTRATION /CREATE AN ACCOUNT

Test suite ID	White box testing
Test Case ID	1.REGISTRATION /CREATE AN ACCOUNT
Test Case Summary	Testing if the user can have access to registering into the system.
Related Requirement	Ability to register to the system
Prerequisites	None
Test Procedure	1.Fill in the register form with credentials of an unregistered user. 2.Does authorization of the user take place 3.Register details of unregistered user 4.Does rejection of the user take place?
Data Testing	MySQL database
Results that were Expected	Unregistered user must be registered whereas registered users fail to register and be notified that the user already exists
The Actual Results	The unregistered user managed to register succefully however users that already existed in the database failed to register with the same details
STATUS	PASS
REMAKRS	SUCCESSFUL
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	WHITE BOX TESTING
TEST CASE ID	1.Registration/Create an account

Enabling users to Access and View services provided by WebAndVetted

Test suite ID	Black box testing
Test Case ID	1.Enabling users to Access and View services provided by WebAndVetted
Test Case Summary	Testing if the user can have access and view services provided by the system
Related Requirement	Non
Prerequisites	Before viewing the services user has to have an approved account within the system
Test Procedure	1.Fill in the login form with credentials of a registered user. 2.Services will be viewed on the dashboard together with instructions that help as a guide.
Data Testing	MySQL database
Results that were Expected	Registered users with privileged rights must login for access and have an interface that includes all services provided.
The Actual Results	Registered users with privileged rights was granted access and the ability to view the services provided.
STATUS	PASS
REMAKRS	SUCCESSFUL
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	WHITE BOX TESTING
TEST CASE ID	Enabling users to Access and View services provided by WebAndVetted

Testing if the user can fill in and submit application forms for membership

Test suite ID	Black box
Test Case ID	Testing if the user can fill in and submit application forms for membership
Test Case Summary	Fill in a form and submit
Related Requirement	Login
Prerequisites	Before filling and submitting a form user has to have an approved account within the system
Test Procedure	1.Fill in the login form with credentials of a registered user. 2.press submit
Data Testing	MySQL database
Results that were Expected	POP UP Message that notifies the user that they have succefully logged in and then redirected to the user dash board
The Actual Results	POP UP Message that notifies the user that they have succefully logged in and then redirected to the user dash board
STATUS	PASS
REMAKRS	SUCCESSFUL
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	Black BOX TESTING
TEST CASE ID	Testing if the user can fill in and submit application forms for membership

Testing if users can post

Test suite ID	Black box
Test Case ID	Testing if users can post
Test Case Summary	Testing if users can post
Related Requirement	
Prerequisites	Before filling and submitting a form user has to have an approved account within the system
Test Procedure	1.Fill in the login form with credentials of a registered user. 2.press submit 3.Within the user dash board go to post 4.Fill in the details needed within the posting form 5.upload a word file from the machine 6.press post
Data Testing	MySQL database
Results that were Expected	A transcript will appear below the form in form of a table containing all the details you filled in.
The Actual Results	The table was populated at within the HTML web page containing all results
STATUS	PASS
REMAKRS	SUCCESSFUL
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	Black BOX TESTING
TEST CASE ID	Testing if users can post

Searching for freelancers

Test suite ID	Black box
Test Case ID	Searching for freelancers
Test Case Summary	Searching for freelancers
Related Requirement	
Prerequisites	
Test Procedure	Type into the search bar for any freelancer available
Data Testing	MySQL database
Results that were Expected	List of freelancers with related search that the user input into the text field
The Actual Results	An error on when trying to review the freelancers searched ,not displaying anything but just the PHP code on the browser
STATUS	FAIL
REMAKRS	FAIL
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	Black BOX TESTING
TEST CASE ID	Searching for freelancers

Accept and Reject applicants

Test suite ID	Black box
Test Case ID	Accept and Reject applicants
Test Case Summary	Accept and Reject applicants
Related Requirement	Register
Prerequisites	Register
Test Procedure	Register and submit form
Data Testing	MySQL database
Results that were Expected	Administrator being able to Approve and reject requests from users
The Actual Results	Admin was only able to approve but not reject
STATUS	Fail
REMAKRS	IN PART
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	Black BOX TESTING
TEST CASE ID	Accept and Reject applicants

Users must keep track of Reviews and Ratings

Test suite ID	Black box
Test Case ID	Users must keep track of Reviews and Ratings
Test Case Summary	Users must keep track of Reviews and Ratings
Related Requirement	Submit portfolio
Prerequisites	
Test Procedure	User must submit portfolio to freelancers
Data Testing	MySQL database
Results that were Expected	Able to see the schedule ,rates and how far with the project
The Actual Results	Not attempted
STATUS	Fail
REMAKRS	Fail
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	Black BOX TESTING
TEST CASE ID	Users must keep track of Reviews and Ratings

Subscribe For membership

Test suite ID	Black box
Test Case ID	Subscribe For membership
Test Case Summary	Subscribe For membership
Related Requirement	Registered companies and Freelancers
Prerequisites	
Test Procedure	When companies login they should have access to a subscribe button
Data Testing	MySQL database
Results that were Expected	A message displaying ,showing that a company managed to subscribe
The Actual Results	Not attempted
STATUS	Fail
REMAKRS	Fail
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	Black BOX TESTING
TEST CASE ID	Subscribe for membership

Users must integrate with social media platforms

Test suite ID	Black box
Test Case ID	Users must integrate with social media platforms
Test Case Summary	Users must integrate with social media platforms
Related Requirement	
Prerequisites	
Test Procedure	Open the webandvetted home page and click on social media icons that will direct you to share the website on social media platforms
Data Testing	MySQL database
Results that were Expected	A social media link that directs you to share on social media
The Actual Results	Access to Social media was possible however WebAndVetted didn't have a social media webpage on Facebook , Instagram etc.
STATUS	Pass
REMAKRS	In Part
CREATED BY	COLLEN M RANNYENA
DATE OF CREATION	
EXECUTED BY	COLLEN M RANNYENA
DATE OF EXECUTION	
TESTING ENVIRONMENT	SOFTWARE ENVIRONMENT
TEST SUITE ID	Black BOX TESTING
TEST CASE ID	A social media link that directs you to share on social media

TECHNICAL DEPLOYMENT

The sections bring to the table all the requirements that are technical to the system like installation and deploying within the business industry

TECHNICAL REQUIREMENTS

For tables and records MySQL database was used.

The table below shows the necessary hardware requirements that were used for developing and implementing WebAndVetted system.

HARDWARE RESOURCE	MINIMUM	SPECIAL RECOMMENDATION
PROCESSOR	Intel Core	Quad Core Processor 2.2ghz as mentioned in the requirements plan
RAM	2GB	4GB
HDD	1 X 40 GB	DISKSPACE OF 1TB
OPERATING SYSTEM	64bit Operating System	64bit Operating System

The table below shows the necessary software requirements that were used for developing and implementing WebAndVetted system.

SOFTWARE	VERSION
XAMPP	3.2.1
MICROSOFT OFFICE	2016
NOTEPAD++	6.9

The table below shows the necessary programming languages requirements that were used for developing and implementing WebAndVetted system.

LANGUAGE	VERSION
Mysql	5.6.21
PHP	4.2.11
html	5
CSS	3

The table below shows the necessary networking operating system requirements that were used for developing and implementing WebAndVetted system.

networking operating system	minimum	recommended
Operating system	Windows 7	Windows 8
Operating system	Mac OS	Mac OS X 10.0

CRITICAL REFLECTION

For the project to be carried out a business pitch was carried out that the Sunderland Software City is a client with the goal of encouraging and supporting the growth of software industry since the year of establishment 2009 in North East of England. It develops a sustainable software industry within England for both public, private and educational sectors furthermore driving towards the development of world class software businesses. Sunderland Software City inspires new businesses driven by innovative software solutions (Software enterprises). The client is looking for a service that includes the design and development of an interactive website and call centre solution which would be a new software business venture provisionally called WebandVetted. The solution aims to provide referral to freelance web developers, small to medium sized enterprises and Voluntary sector organisations that have been facing constraints. A project schedule was made to show all the tasked involved in coming up with the final piece within a stipulated time frame.

Practitioner statement was also used as a tool that gathered up the methodologies, tools and techniques that were to be used when carrying out the whole project. A system test was carried out and all requirements were evaluated giving the client a chance to look and feel the final product before signing it off.

METHODOLOGIES, APPROACHES AND TECHNOLOGIES

RUP was the methodology chosen for the project reasons being that it gave clients the opportunity to get feedback and frequent meetings with the developer. Another benefit for using RUP was that the client had the opportunity to test the final product as much as they want. RUP gave the ability to define tasks in a proper and well-disciplined manner. If it wasn't for time being a constraint the project would have been completed with all the requirements covered while using the RUP methodology. Developing an architectural model was a good approach reason being it eased communication between the Interfaces used by the client and database residing on the server side. Another approach that was taken into consideration was the capability of executing or working on two tasks at the same time to speed up project development, for example writing a practitioner statement, client meetings, schedule and coding at the same time.

Technologies used for developing the project were programming languages, databases and servers.PHP, HTML and CSS are the programming languages that played a huge role in building the prototype. A drawback that was encountered was lack of experience with some of the languages like PHP, I was forced to do online short courses on YouTube as a way of learning the basic fundamentals

of PHP.The ability of me learning PHP from scratch really consumed most of my time. MySQL database was used and it also gave me a few challenges whenever I tried installing it for the very first time on my workstation due to compatibility reasons. However, the user interface was really friendly and gave ease of use. I was really highly experienced in using XAMMP server because I did most of my past projects using it, projects from modules like Advanced Website Design and Innovative Project. My favourite thing about using Xammp is of the supporting features it gives developers which a really reliable.

I could draw up a conclusion to say that all the methodologies, approaches and technologies used in building the WebAndVetted system were really good and I could have completed the project only if the project time allowed.

White box and Black box were used as testing methods. All the functional requirements were tested for internal and external performance. I learnt protocols and processes at the end of testing sessions.

An evaluation was made by the client and I was given feedback on the system that it was a good incomplete product with a very good User Interface however most functional requirements are not fully functional but rather in part. The client gave me an overall satisfactory on the product. Lot has been learnt from the Product Development assignment like how to write a practitioner statement the professional way furthermore I learnt how to be professional when conducting business pitches, client meetings, building client relationships