**ITRW324**

**Documentation**

**Group2**

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# Introduction

A business case to a specific/defined audience covering your product

# Work breakdown of the phases (and work breakdown)

## Group personality evaluation phase

Test group members on 16personalities.com

Write a report about the possible actions of each member and the conflicts that might arise.

## Planning

Planning about function of each aspect of the project such as the website, web service and mobile application. What the role of each aspect of the project will be, such as the website and app being an interface to the web service.

## Initial system aspects

Get server to host a website

Basic hashing function for file to be tested

Get basic app running to select the file

# How the group used git and slack and the result of it

## Git

The repository for the project was hosted on GitHub for the reason that it provides the lecturer access to view the contributions of all the members and the progress of the project.

Initially gitKraken was chosen as Desktop GUI for git submission onto GitHub. Problems arose with committing some of the changes. We started to use GitHub Desktop GUI, because of the ease of pushing and pulling files to the GitHub repository.

The website and web service was initially in a different repository than the mobile application. All the files of the project was then put into one repository.

## Slack

Some of the documents for the initial phases such as the group personality evaluation were posted on slack and then edited before reposting them. This meant that any person assisting the group could read the document before we were ready to ask for advice.

The GitHub repository was used for the final documentation by creating a documentation branch.

# Self review section

## What did the group learn? (technical and non-technical)

It is good to have more experience in specific background such as websites, servers, virtual machines and web services before attempting to do a project in a direction that you consider to be unfamiliar to you that makes use of many of these methods and technologies, such as blockchain,.

Some software IDE’s require a large amount of RAM. Be sure to have sufficient resources for the execution of the programming tasks. Android Studio was used for the mobile application and it was very resource intensive to start up. This meant that the developer had to read up on the programming while they waited to be able to start programming with the IDE’s features, such as the checking of valid classes and methods to reference.

## What development topology was used? Was it effective, what do otherwise

Prototyping – many of the technologies and languages used were unfamiliar and this topology allowed the group to experiment and implement as was needed.

## How did this experience affect the way you will approach projects in the future

* Do more research about the problem that we will choose to develop the system for. Better planning before we start solving the problem we identified.
* Start earlier on with building the system – programming did occur, but it was not a constant expenditure of time over the project period.

# Evaluating the product

## Best characteristics

## If given more time we would improve…:

* Login system
* More visually appealing GUI for the Android application and landscape mode compatibility

## How effective does it solve problem identified

# OTHER IDEAS:

# Possible expansion of the system if the future

* A System for registering users of the system
* Updating of the blockchain’s documents list by adding new documents
* Multiple step verification
* Implementing VPN’s for the blockchain as an additional security measure
* Have different kinds of documents (pdf, doc, ptt, txt)
* Tracking the documents that are submitted for validity testing on the blockchain

8 and 9 seem to be close to “Evaluating the product” above:

# List of developed features(all features, not just the best ones)

# Additional features (that were not required)

* Desktop app

# User manual

* Logging in
* Sending files
* Requirements

# Change in the product

The mobile application does not do the validation on the device, but rather sends the file to a server that ensures that it will be validated on the blockchain. The reason for this is that it is more difficult to implement the blockchain on mobile devices and it can expose the blockchain threats such as monitoring by people with intentions to tamper with it. The mobile device is an interface to select a file, submit it and then show the returned result, valid or invalid document.

Document tracking?

# Problems experienced

* A company that was going to assist with the project withdrew
* Major functions of project such as the website, blockchain and mobile application was posted at a late stage during the semester onto a GitHub repository.
* Changes to the plan for the project – Planning and clarifying had to be done again during the later part of the project to ensure that everyone knew what still needed to be done
* Technological - trying to run asp website on a Linux platform – there were compatibility issues with hosting the website.
* Slow computers – the mobile app was developed in android studio, which is very resource intensive and requires a lot of time to load and build android projects.
* Meetings
* Class sessions
* Assistance

# Requirements

Mobile app – Android 4.0.3 (IceCreamSandwich) or higher

Server/web hosting provider

Internet connection and data

# Bibliography/References

# ASSIGNMENT ON EFUNDI:

This is the assignment you will use to submit your group participation form and final documentation which contains 2 components:

* a business case to a specific/defined audience covering your product, AND
* a technical report that showcases your product in technical detail.

**Document guidelines:**

* Document structure (Introduction, Background, Relevent Sections, Summary, Conclusion/Evaluation Full Bibliography, Appendices etc.)
* Document presentation (Overall document neatness, the *appropriate* use of images - don't use them to fill up pages, reference images as figures, formal language with spelling- and grammar checked etc.)
* Document completeness (There's no target document *length:*if everything that needs to be in there is included, and nothing that shouldn't be in there remains, that is the appropriate length. Less isn't always more, sometimes more is more - show effort.)
* Document continuity and coherency (Each section must be logically linked to the one before and after so that the reader can follow easily. Proof-read each other's sections, very important to deliver a good report.)
* Include an Appendix containing the following [*Required*]:
  + the work-breakdown structure of the entire project through every phase.
  + a section dedicated to how your group used *git* and *slack* to facilitate group development. How did it work for you? What were the benefits/challenges? Should it be a requirement next year? What tools/technologies would you like to see used in this module. Discuss and give feedback.
  + a section dedicated to self-review:
    - what did your group learn in this development project (technical and non-technical)?
    - what development methodology did you use (if any), how effective was it. Would you choose a different approach if you could re-do the project?
    - how did the experience affect the way you'll approach development projects in future?
  + a section evaluating your own product:
    - What are its best characteristics?
    - Given more time, what would you improve?
    - How effective is it in solving the problem you identified initially?