**Portfolio 2**

**A How-To Guide**

**Here is an example how the title page could look like:**

**CS2S567 Professional Practice and Employability:**

**Team Based Software Development Workshop**

**Portfolio 2**

**A Quality Assurance (QA) Portfolio**

Detailing own role in the team effort

**By**

*Your Name here, Enrolment number here*

|  |  |
| --- | --- |
| Team Number | **1** |
| Team Task | Setup and .... |
| Own role(s) and tasks in Team | Role:   * big cheese (main bully) * agony aunt   Tasks:   * make coffee * buy pizzas * string some code together * not get in the way of the clever guys * ... |

**Here is an example of a table of content. Note that it was created automatically. Look it up if you don't know how to do this - a real time saver!**

**Table of Content**

[QA Activity Overview Log 2](#_Toc460948477)

[Weeks 1 & 2 3](#_Toc460948478)

[Weeks 2 & 3 4](#_Toc460948479)

[Appendix: Additional Evidence 5](#_Toc460948480)

**Frequently Asked Question: What is Quality Assurance (QA)?**

'Quality Assurance' comprises all activities that are necessary in order to produce a product of the highest possible standard or as Wikipedia[[1]](#footnote-1) defines it:

"*...is a way of preventing mistakes or defects in manufactured products and avoiding problems when delivering solutions or services to customers; which* [*ISO 9000*](https://en.wikipedia.org/wiki/ISO_9000) *defines as "part of* [*quality management*](https://en.wikipedia.org/wiki/Quality_management) *focused on providing confidence that quality requirements will be fulfilled*"

For the production of software this means:

Preparation work

* making sure that the program requirements are clear and well defined (PRD)
* making sure that project staff have all the required knowledge in terms of standards, processes, policies, procedures, programming know-how,
* Agreeing on backup procedures

So, in this portfolio you need to show that you have considered this, researched the 'how-to' and have taken action to fill any gaps in your knowledge, etc.

Programming work

* There are programming techniques such as 'Extreme programming' which address activities such as good communications, pair programming and continuous testing.
* Making backups (and verifying they are indeed ok)
* Verification and validation activities[[2]](#footnote-2) such as unit testing , static testing, dynamic testing, regression testing, integration testing, etc. And all of those in black box and/or white box mode. Not all of these apply of course, it depends.

So in this portfolio you need to show that you have considered this (e.g. do background research on which tests to do and why) and taken action (e.g. done testing and reacted to the outcome). See lecture slides of 'Secure Software Development' weeks 17, 18 and 19 for this.

Rolling it out work

* How do you securely deploy your software
* How do you plan the software maintenance and updating
* What information does the user need (manuals, training, preparation for change-over to the software,...)

So in this portfolio you need to show that you have considered this (e.g. read-up on it) and taken action (e.g. contact users, produce a training manual). See 'Secure Deployment' lecture slides of 'Secure Software Development'.

**How to report**

Use the table structure below. Fortnightly reports, i.e. one table every 2 weeks are sufficient. The blue 'Team' items can and should be completed jointly, the green 'Own' column you obviously do on your own.

Each team member should report on 6 consecutive weeks only, i.e. 3 of the tables below for each individual. Since a typical team is usually made up of 4 members the team could divide the reporting up like this: Team member 1: weeks 1 to 6, Team member 2: weeks 7 to 12, Team member 3: weeks 13 to 18, Team member 4: weeks 19 to 24. (Team with fewer members just have a few unreported weeks.)

|  |  |
| --- | --- |
| Weeks 21 & 22 | **Project Setup** |
|  | **Group** |
| **Activities undertaken** | * By this week we had performed a lot of the programming aspects, the GUI had multiple linked pages that could be accessed through logging in, although this still had not been connected to the database, for future projects like this our group should have really asked for more team members or support from teams with more members so as to be able to handle all the programming that was needed. In addition to this we could have asked for more help with programming from our third team member but they were often missing from seminars and tutorials or were very busy with other work. * We nearly finished our vulnerabilities research and had incorporated a few aspects into our actual program which was a very good development. |
| **Outcome of QA activities** | * Program contained security vulnerability protection and even though we were struggling to complete the program we were confident that we had learnt a great deal and made a lot of progress since the first term and were relatively happy with our activities. |

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|  |  |
| --- | --- |
| Weeks 23 & 24 | **Project Setup** |
|  | **Group** |
| **Activities undertaken** | * At this stage it became clear that it was unlikely that we were going to finish everything we had wanted to accomplish. This was partially due to giving ourselves too much to do (4 complex GUIS) so we settled on trying to get to a point where we felt comfortable to stop developing and finishing off our vulnerabilities etc. * Our vulnerabilities had been completed bar one team member that we were waiting on to research two vulnerabilities. He had gone home for the Easter break early so we were not sure whether he would be completing this work or not. * 2 out of our 3 team members attended the last seminars of the year and in addition to watching and giving feedback to other groups we learned about some real world job opportunities from government organisations from our lecturer. |
| **Outcome of QA activities** | * We best finished off our program and the accompanying documents * We learned a great deal about how we could apply our new knowledge to real life situations. |

1. https://en.wikipedia.org/wiki/Quality\_assurance [↑](#footnote-ref-1)
2. Verification = Are we building the product right? Validation=Are we building the right product? [↑](#footnote-ref-2)