**ASSIGNMENT COVER SHEET**

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| --- | --- | --- |
| **Student’s name** | (First name)  Yamen | (Last name)  Kasso |
| **Module name** | Software Engineering & Agile | |
| **Title of assignment** | Software Engineering & Agile | |
| **Complete Word Count in my assignment** | 962 | |
| **Date submitted** | 10/09/2022 | |

All work must be submitted by the due date. If an extension of time to submit work is required, a [Mitigating Circumstances Extension Form](https://canvas.qa.com/courses/1041) must be submitted.

<https://canvas.qa.com/courses/1041>

Has an extension been approved? Yes No If yes, please give the new submission date ….…/..…./…….

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| IMPORTANT: THIS STATEMENT MUST BE READ & SIGNED  **Academic Integrity Statement**  Academic integrity and honesty are fundamental to the academic work you produce at the University of Roehampton. You are expected to complete coursework that is your own and which is referenced appropriately. The university has in place measures to detect academic dishonesty in all its forms. If you are found to be cheating or attempting to gain an unfair advantage over other students in any way, this is considered academic misconduct and you will be penalised accordingly.   ​  **I declare that the work I am submitting is my work, is properly referenced and has not been submitted elsewhere.** |
| **Student Signature (Full Name): Yamen Kasso**  **Date: 10/09/2022** |
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Software Engineering & Agile

# Task 1

Task 1 has been completed in the readme document available in the GitHub repository.

<https://github.com/Yman01/ITHelpDesk_Assignment>

# Task 2

The application I created was a generic IT ticket system. The core idea of it is a User would submit a ticket with their IT problem and it will then be reviewed by a support team.

The agile framework I used for my application was Kanban. Kanban is a versatile framework that is very good for small teams and individuals. It creates a continuous flow of work and using Kanban boards like Trello allows for virtualisation of the project and limit what is being worked on at any one time. It also has no required roles which is perfect for me as I am the sole contributor to the project, I have to plan, design, develop and test the application within a very short time. (Kanban vs. Scrum: Key Differences, Pros, and Cons, 2022)

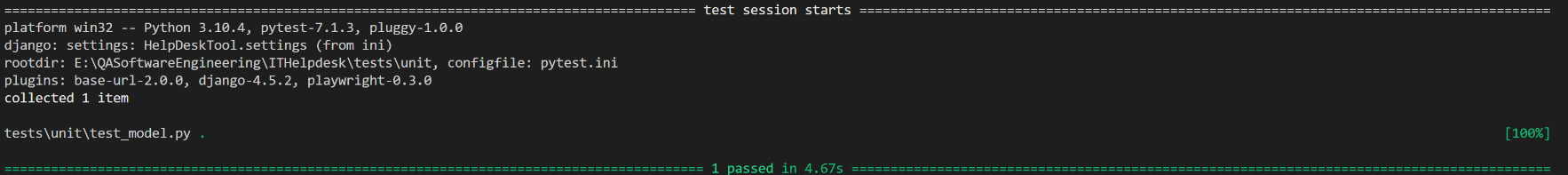
The reason I chose not to use a framework like scrum is because it is not applicable to a one-person team. I cannot be both a developer and a scrum master it would defeat the point of it. All other frameworks have the same problem, they all require some sort of team. The limitation of this project forces me into Kanban as it is the only viable option.

For designing the application, I used PowerPoint to illustrate the flow of the application. The PowerPoint is split into 4 sections showing the signup/sign in pages, the home screen, Ticket create and view pages and the account details page. The GitHub repository includes the PowerPoint showing this. I created a Trello board with the core requirements of the application and used it to stay on track whilst developing.

<https://trello.com/invite/b/wialYTb9/ca3dcc647ba253c7236c01e5e47a7004/it-helpdesk>

For the tools regarding the application itself, the language I used was Python, the framework was Django, I used MySQL in a docker container whilst developing and I used html and CSS. I was locked into python due to the requirements of the assignment, I personally found this to be quite troublesome as python is not a web application language, I therefore used Django as it is the most used web application framework for Python and had a lot of documentation which I frequently used. I used MySQL as my database, and I had it in a docker container as it was much easier to setup and use for development and testing.

Text

Description automatically generated with low confidenceI used pytest and playwright for unit and integration testing. Below are images showing the unit and integration tests passing.

Task 3

The area I work in is an infrastructure team. We automate, fix, and upgrade the infrastructure when necessary. The agile framework we use is Kanban. We have a program called Jira which helps us plan, assign, track, report, and manage work. It is like Trello with boards but instead we get ticket we fix problem and done. When we have bigger projects like expansion of the infrastructure, we structure the requirements, and we create a board to help us keep track of the project progress. (Kanban vs. Scrum: Key Differences, Pros, and Cons, 2022) (What are the Pros and Cons of Kanban? | WisdomPlexus, 2022)

The reason why we use Kanban is because it is the simplest framework, and our team is small. As our team is small we can collaborate better on tasks listed on the Kanban board. The framework offers adaptability for when there could be constant changes. Kanban also has very low overhead as there are dozens of Kanban tools for free and it also provides an easier analysis of progress. Of course, there are disadvantages to Kanban there’s no timeframes for when tickets are completed, Kanban does not offer iteration how it is not exactly necessary for our area of work. Kanban does fit in a dynamic environment where activities can be different, again this is not exactly applicable as we have got a ticket we fix and done and for bigger projects like scaling infrastructure it is not that dynamically changing in terms of work or requirements. (What are the Pros and Cons of Kanban? | WisdomPlexus, 2022)

Why do we not use other agile frameworks? The reason why we don’t use other frameworks like scrum for example is because they usually require a much bigger team and have roles assigned to each person. As everyone in the team has very similar workloads there is no specific role that anyone has. The tickets and even our big projects don’t have a set timeline, they are completed whenever they get done. Scrum has sprints meaning that one thing must be done in that timeframe which may often prevent other tickets or projects from continuing. Kanban provides that flexibility for when something is being worked on and is moving to completion another ticket or project can be picked up.

How can the agile framework we use be improved or should we change to a different framework? Firstly, our team have tried other frameworks and it did not work we found that our productivity and motivation decreased hence we have continued using Kanban. Due to having both tickets and projects it would be difficult to move to something like scrum as we may have several tickets going at once and there would also be a project going on. Therefore Kanban is still the best framework for us and it provides that flexibility of being able to work on something until it is done with out being locked into a timeframe.

Bibliography

Agile Project Management Best Practices & Guides | Zenhub Blog. 2022. Kanban vs. Scrum: Key Differences, Pros, and Cons. [online] Available at: <https://blog.zenhub.com/key-differences-between-kanban-and-scrum/?utm\_term=&utm\_campaign=Github+-+Project&utm\_source=adwords&utm\_medium=ppc&hsa\_acc=8479887336&hsa\_cam=14577630687&hsa\_grp=140643874001&hsa\_ad=612847361497&hsa\_src=g&hsa\_tgt=aud-1681726485745:dsa-19959388920&hsa\_kw=&hsa\_mt=&hsa\_net=adwords&hsa\_ver=3&gclid=Cj0KCQjw6\_CYBhDjARIsABnuSzohq\_z0cpDryZGQSmF0f8XsRIcDMTIPUn8RVD9w9Lw-vNmig99nCzIaArwCEALw\_wcB> [Accessed 10 September 2022].

WisdomPlexus. 2022. What are the Pros and Cons of Kanban? | WisdomPlexus. [online] Available at: <https://wisdomplexus.com/blogs/pros-cons-kanban/> [Accessed 10 September 2022].