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| **Module** | **Portfolio** | **Assessment Type** |
| Collaborative Development (5CS024) | 1 | Individual Report |

[Tour Management System - Developer]

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Group : L5CG5 Group B

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Submitted on : 11/04/2022

Word Count : 1520

**Acknowledgement**

**Table of Content**

[Self-appraisal form 1](#_Toc100549224)

[Personal objectives – performance measurement 1](#_Toc100549225)

[Collaboration Document 2](#_Toc100549226)

[Evidence of good collaboration 2](#_Toc100549227)

[Good communication and file sharing 2](#_Toc100549228)

[Continuing Personal Development (CPD) 3](#_Toc100549229)

[Issue tracking 3](#_Toc100549230)

[Appendix A 4](#_Toc100549231)

[1. Choosing for the relevant technologies 4](#_Toc100549232)

[2. Implementing functional requirement 6](#_Toc100549233)

[2.1. Codes and its explanation 6](#_Toc100549236)

[2.2. Use of Version control (Screenshots of logs) 8](#_Toc100549237)

[Appendix B 10](#_Toc100549238)

[1. Evidence of Good communication and file sharing 10](#_Toc100549239)

[2. Evidence of Continuing Personal Development (CPD) 11](#_Toc100549240)

[3. Evidence of Issue tracking 14](#_Toc100549241)

[References 15](#_Toc100549242)

# Self-appraisal form

|  |  |  |  |
| --- | --- | --- | --- |
| Student number | 2059788 | Name | Prabesh Kumar Shrestha |
| Project | Tour Management System | Date |  |
| Role | Developer | Team | L5CG5 (group B) |
| Sprint (1 or 2) | 1 |  |  |

# Personal objectives – performance measurement

|  |  |  |  |
| --- | --- | --- | --- |
| **Objectives** | **Evidence provided** | **Evaluation**  *Student / tutor* | |
| Choosing required technology | While I was researching about which framework to choose for the backend of project, I found out that Django was the most preferred framework. As other framework options were spring boot, Laravel, Ruby, express.js, mongo DB but I decided to choose Django as per my research and evaluation.  And for the frontend we decided to choose React.js framework as all our teammate was familiar with the JavaScript. Detailed evidence are in ([Appendix A](#_Appendix_A)) | 9 |  |
| *Tutor feedback:* | | | |
| Implementing functional requirement | As a front-end developer in the team, I have to take care of make login page, dashboard, add packages, remove packages and update packages for this sprint and to implement this I used bootstrap framework and also MUI (Material UI). To record my commitment in this project, I used git as VCS.  Evidence is provided in ([Appendix A](#_Appendix_A)) | 9 |  |
| *Tutor feedback:* | | | |
|  |  | /20 | /20 |

# Collaboration Document

# Evidence of good collaboration

## Good communication and file sharing

Firstly, project manager created a basecamp and added all the team members and we shared our project files in the basecamp and also, we did our weekly meetings in time. Also, we had several issues while doing the projects, so we made our own discord server and mostly we developers use to call each other in the discord and also several codes were commented properly which made it easier to understand for the other teammate. Evidence are in [(Appendix B)](#_Appendix_B)

\*\*Link to the evidence document in the same file (Cross referencing) (Appendix B) \*\*

## Continuing Personal Development (CPD)

During the development of this project several technologies were used including Django (Backend), React.js (Frontend), Git, GitHub, bootstrap (CSS framework) and also MUI (Material UI). So, to get myself familiarized with the technologies we are going to use I had to review the React.js as well as next.js but we preferred to use next.js at last. And talking about version control system lecture, tutorials and workshops were most helpful to use Git and GitHub.

Link to the evidence is in [(Appendix B)](#_Appendix_B)

## Issue tracking

Receivable evidence includes:

* Screenshots of **personal contributions** to GitHub issues.

***Important****: Please include no more than 5 items*

In this sprint I was responsible for creating frontend and also routing different pages among login, dashboard, update, delete, add new packages. As per goals I have completed my task and pushed it in my branch first and later pushed it in the main branch after confirming with my team-mate. Some of the issued raised in GitHub and the evidence of it being solved are shown in the ([Appendix B](#_Appendix_B))

# Appendix A

## Choosing for the relevant technologies

As a developer I would choose a technology that is easier for me to learn, stable, good reputation, huge community to help, proper documentations and so on. While doing research on which framework is suitable for the project I came across some back-end frameworks like Django based on python, Laravel of PHP, express.js of JavaScript, spring boot of java and also, I looked into Asp.net developed by Microsoft which is based on C#. At the end after the extensive research on the different frameworks and platform I concluded on choosing a python framework named Django. This framework was easy to navigate through because of the proper library management system as this framework was developed to oversee larger projects. While doing research I came to know that Django is one of the most popular web frameworks to develop both web and smartphone projects. Also, Django framework is constantly getting updates with better functionality and stability. Django framework is completely free open-source backend software. Some of the popular websites based on the Django frameworks are Instagram, Spotify, YouTube, The Washington Post and so on. (MDN, 2022)

Now for the frontend development we looked into different frameworks like AngularJS, react JS, next JS, vue.js and so on. As I have previously worked a little on next JS and my teammate were familiar with the ReactJS we decide to choose react JS as the suitable framework for our frontend development. Also, there is a huge community of developers that uses ReactJS for the frontend development with around 10.2 million websites worldwide using this framework. In this framework components can be reused in other parts of the app. As we all know that while reusing the same component can cause lots of complication but in react all components are isolated and change in one doesn’t carry forward to others. Although ReactJS was developed back in 2011 it is still very much popular. Some of the websites built using ReactJS are Facebook, Netflix, Instacart, Dropbox and so on. (monoocubed, 2021)

Chart

Description automatically generated

Figure ReactJS VS Other JavaScript Libraries

Also, for the cascading I imported bootstrap framework and MUI (Material UI). Everyone is familiar with the bootstrap and its advantages as it is very easy to use and also makes the websites reactive with the lesser lines of codes and talking about MUI, it is an MIT-licenced open-source CSS framework. It helps to create more prettier buttons and other materials.

## Implementing functional requirement



### Codes and its explanation

At first, I created a dashboard after a wireframe was confirmed where a admin can add a new package view packages and update as well as delete package.

Graphical user interface, website

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Figure First attempt to create dashboard

But later while adding more packages there was the problem with the background so we later decided to remove the background picture and make it simple as possible as it is just for the admin.

Graphical user interface, application

Description automatically generated

Figure another version of design

And then later I made the update and add packages at once cause both of the forms has same kind of concepts.

A screenshot of a computer

Description automatically generated with medium confidence

Figure AddForm.js

Here as we can see forms and buttons were imported from the react-bootstrap and to store the values given by users in the forms I have created empty variable and when the submit button is clicked the new package is called and the data is uploaded to the database.

A screenshot of a computer

Description automatically generated

Here on the line number 91, we can see that when the button is clicked all the user provided data are fetched using the new package function. Similarly, I created login and update form and backend was handled by my team members.

### Use of Version control (Screenshots of logs)

While working with a group version control is very much useful as it allows us to easily monitor the updates in the project. But we also faced some problems as we didn’t know that we had to use git-ignore for the node-modules inside the ReactJS which caused some problems. I made a branch from the main branch named Prabesh\_dev for myself and then worked on that branch. I have attached some of the evidence of using commits below.

A screenshot of a computer

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Figure use of VCS

# Appendix B

## Evidence of Good communication and file sharing

For the communication between team members, we used basecamp and discord group to help each other. We discussed about different problems we faced during the projects in group meeting arranged in google meet. Some of the evidence are attached below.

A screenshot of a computer

Description automatically generated with medium confidence

Figure Docs and file sharing in basecamp

Graphical user interface, website

Description automatically generated

Figure Discord chat and file sharing

## Evidence of Continuing Personal Development (CPD)

Beforehand choosing the technology I was already working with some flutter projects, and I have a good knowledge about the OOP and also, we had to learn python from first semester as well as I started learning python before even joining bachelors. Also, I have been taking courses of JavaScript for frontend development in my free time and I have attached a certificate below.

Text

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Now after choosing the required technologies for the project, we had to get familiar to every tool we got so I started to watch YouTube videos and follow their instructions for the installation. Some of the video links are listed below:

* <https://youtu.be/Ke90Tje7VS0>
* <https://youtu.be/hQAHSlTtcmY>
* <https://youtu.be/rHux0gMZ3Eg>
* <https://youtu.be/PtQiiknWUcI>

Also just watching video was not enough so I had to read some documentations which are listed down below:

* <https://docs.djangoproject.com/en/1.8/howto/windows/#:~:text=Django%20can%20be%20installed%20easily,version%20in%20the%20command%20prompt>.
* <https://docs.microsoft.com/en-us/windows/dev-environment/javascript/react-on-windows>

But there were some problems with the installation too and I had to create new environment at first but later I removed old python and installed new one from Microsoft store and it worked well without new environment. We were just playing with tools like Django and react on our own and then later we created a new repository for our task and then we worked on that repository under our own branch. I was mainly focused on the frontend development and then later while developing webpages for the styling I started to investigate the bootstrap and MUI (Material UI) frameworks which helped to make the webpage more attractive and also responsive. For using bootstrap, I didn’t have to go through any tutorial videos because of their proper documentations on their technology. Other documents that I had to look into for this first sprint are listed down below:

1. For frontend

* <https://react-bootstrap.github.io/getting-started/introduction/>
* <https://mui.com/material-ui/getting-started/installation/>

1. For backend

* <https://dev.to/koladev/django-rest-authentication-cmh>

## Evidence of Issue tracking

A screenshot of a computer

Description automatically generated

# References

MDN, 2022. *Django introduction.* [Online]   
Available at: https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django/Introduction  
[Accessed 10 4 2021].

monoocubed, 2021. *Why Use React? – Top 8 Reasons Experts Use React in 2022.* [Online]   
Available at: https://www.monocubed.com/blog/why-use-react/  
[Accessed 4 10 2022].