UNIT CODE PRT 585

Software Engineering Practices

Assignment 02:

Group Progress Report

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Progress Report (Haizhong Lin S363429)

In the initial weeks, I focused on the role of a developer, undertaking various learning and practical activities to build my skills. During Week 1, I began by reading through classroom tutorials and task instructions to get familiar with the basics. I learned how to create a Git repository and wrote a simple "Hello World" program using Visual Studio Code. Additionally, I explored the use of Git commands and practiced using the controller in C#. By the end of this week, I had started learning the basics of C# programming.

In Week 2, my efforts were directed towards researching job descriptions for program developers and testers to understand the essential skills required in the industry. I also delved into behavioral-based HR questions that are commonly asked during interviews for these roles and prepared responses. To further enhance my interview readiness, I watched a series of interview-related videos to gain more insights.

Moving on to Week 3, I focused on creating a comprehensive resume and developing a role-specific skills learning plan. I watched tutorials related to unit testing and learned how to write test cases using the unittest framework. During this week, I also revisited the fundamentals of C# through resources on freeCodeCamp to reinforce my programming knowledge.

In Week 4, I started learning how to install and configure Entity Framework Core within ASP.NET Core MVC projects. Additionally, I practiced performing CRUD operations in an SQLite database. To further expand my knowledge, I explored JUnit and wrote simple test classes. Lastly, I used Selenium to automate testing on Google Chrome, enhancing my testing and automation skills.

Week 5 was dedicated to setting up essential development tools like Visual Studio and Azure Data Studio. I learned how to use these tools effectively and followed a step-by-step guide to build a 3-tier web application.
In Week 6, I installed Docker and learned how to use it for containerization. I watched a C# beginner tutorial on YouTube to strengthen my programming skills. Additionally, I attempted to run a database on Docker and used Azure Data Studio to manage the Docker database. I tried to run a 3-tier web application, but encountered errors when clicking the API interface, which led to efforts to debug and fix the issues.

During Week 7, I installed a UTM virtual machine and tried to set up a Windows system, but the SQL Server installation failed. I then followed tutorials on installing VMware Fusion on a Mac system and successfully set up Windows. However, I encountered more errors when installing SQL Server. Eventually, I managed to install SQL Server on Docker, disabled Windows authentication in the code, and successfully ran the 3-tier web application.

In Week 8, I created a unit API interface based on the project's API guide. I also worked on creating a new API interface within the team project, ran into errors, and spent time analyzing and troubleshooting the issues.

By Week 9, I focused on learning interview skills and common interview questions. I also planned to study the Angular framework to prepare for future project needs. Additionally, I reviewed SQL tutorials to further strengthen my database management skills.

Github Link:

- https://github.com/prashilthegreat/DevGroupB/tree/main
- https://github.com/TigerQian/Tester---Group-C/tree/main/
- https://github.com/prasanna-adhikari/PRT-585-Group4-Devlopment
- https://github.com/prasanna-adhikari/PRT-585-Group4

TimeSheet:

- Individual_timesheet.xlsx
- Develop_Group_B.xlsx

Progress Report (Prasanna Adhikari S371855)

My primary role is Software Developer, and my secondary role is Data Analyst. During Week 1, I started with learning LinkedIn course on Information Technology Infrastructure Services (ITIS). Then I worked on setting up the environment for C# development. I also started Basic Python for Automation Course on Coursera which I got from ACS.

In Week 2, I continued learning the course Basic Python for Automation. Then I focused on researching job descriptions for software developer and data analytics to better understand the skills required in the industry. I explored top 30 questions for developer and data analyst role including behaviour, HR and technical questions. I also searched and listed the file extensions developer should be familiar with.

During Week 3, I worked on multiple tasks for both of my development and data analysis roles. I started by listing and learning about different software development methodologies, including Agile, Scrum, and Feature-Driven Design. Additionally, I installed and set up the Tableau environment. I researched and installed useful browser extensions like Hoverify, Wappalyzer, and SEOquake. These extensions are used to inspect front-end elements, analyse technology stacks, and evaluate SEO metrics for websites. Lastly, I spent time revising and practicing SQL queries.

In week 4, I learned about various SQL clauses using MySQL, which helped enhance my database querying skills. I continued Basic Python for course on Coursera. I covered the basics of Python programming, which included an introduction to automation concepts. By the end of the week, I successfully completed the basic Python for automation course.

During Week 05, I dedicated time to practicing Node.js and React.js, enhancing my proficiency in both technologies. As part of this learning process, I also created a crash course to share with my team during a group meeting. I also installed Tableau Desktop for report writing and data visualisation and furthered my understanding of data cleaning techniques using Tableau Prep.

During Week 06, I began by installing Visual Studio and SQL Server Management Studio (SSMS), while also setting up the Git repository and Teams group for Group 4. Following that, I cloned the 3-tier application from the repository and successfully executed the program on my local machine. The latter part of the week involved a group meeting where I assisted my team in configuring and running the 3-tier application on their personal computers, ensuring everyone was able to work efficiently with the shared project setup.

During Week 07, I began by creating a new Git repository for the team to centralize our project work, ensuring that everyone could collaborate more efficiently in one repository. Following this, I spent the remainder of the week developing three APIs,

adhering to best practices for API design and implementation, which contributed significantly to the project's backend development efforts.

During Week 08, I worked on building the frontend using React. I created a simple and responsive interface. Then, I integrated the APIs I had developed earlier. This allowed the frontend to communicate with the backend, making the application functional and interactive. Also, I help team to fix the issue they were getting while running the application.

During Week 09, I spent time learning about FluentValidation, FluentMigrator, and Kendo UI. FluentValidation helped me understand how to implement better validation rules in my code, while FluentMigrator gave me insight into managing database migrations effectively. I also explored Kendo UI, which provides useful components for building user interfaces. After learning these tools, I built a frontend using Chakra UI. Chakra UI made it easy to create a clean and responsive design, improving the overall user experience of the project.

Github Link:

- https://github.com/prasanna-adhikari/PRT-585-Group4-Devlopment
- https://github.com/7uv4n/DeveloperGroupA
- https://github.com/7uv4n/DataAnalystB
- https://github.com/prasanna-adhikari/PRT-585-Group4

TimeSheet:

- Timesheet_Dev_GroupA.xlsx
- Personal : IndividualTimeSheet_Prasanna.xlsx

Progress Report (Min Shi S366786)

Week 1

In the first week, I focused on setting up the foundational tools for my development journey. I created a GitHub account and developed a resume, which I then uploaded to my GitHub profile. I also began building a website using JavaScript, spending time on designing the logic and structure of the site. By the end of the week, I successfully established the website and hosted it on GitHub Pages at shidami.github.io.

Week 2

During the second week, I delved into GraphQL. I spent the initial hours researching and watching instructional videos to get a solid understanding of the technology. After installing GraphQL and its necessary dependencies, I dedicated the next couple of hours to creating a simple GraphQL server using Express.js. I ran the server and tested various queries, adding multiple categories and user-related queries along with mutations to enhance functionality.

Week 3

In week three, I shifted my focus to Next.js. I began with research and video tutorials, then proceeded to install Next.js, React, and React DOM. I opened the server in development mode and worked on creating the main page (pages/index.js) and setting up API routes (pages/api/). I also focused on creating reusable components for the application, culminating in the deployment of a simple app using Vercel.

Week 4

The fourth week was dedicated to learning SQL. I conducted research on SQL fundamentals and explored the official MySQL website. I studied MySQL query grammar and the significance of indexing, which plays a crucial role in database optimization. To reinforce my learning, I downloaded the MySQL software and practiced writing queries.

Week 5

In week five, I explored the .NET framework. I began by researching the official .NET website and watching beginner videos on YouTube. I learned how .NET can be leveraged for project development, along with its unique features. Additionally, I practiced creating a cloud-native application using .NET Aspire, solidifying my understanding of the framework.

Week 6

During the sixth week, I shifted my focus to a group project. I installed SQL Server and the management console, as well as Visual Studio to run the provided project model. I successfully connected SQL Server to the project, enabling data visualization and interaction with the database.

Week 7

In the seventh week, I focused on testing the web application for smooth functionality. I added sample data to SQL Server through the web application to assess usability. Additionally, I assisted a teammate in running the project on a Mac using Docker, which enhanced our collaborative efforts.

Week 8

Week eight involved creating a new API module called "Unit" in our group project. I followed the structural guidelines provided by our tutor to develop this API. I also created a new development branch called dev-min on GitHub to manage updates. My contributions included developing APIs within the main branch of our team project, reinforcing our collaborative workflow.

Week 9

In the final week, I focused on enhancing my professional skills. I researched how to write an effective resume and practiced interview techniques. I also planned the front-end structure of our project based on the React framework, ensuring it aligned with our project's objectives and requirements.

Git hub links:

https://github.com/prasanna-adhikari/PRT-585-Group4-Devlopment
https://github.com/bishwasmgr/Developer---Group-C
https://github.com/shi82421/Group-A--other
https://github.com/prasanna-adhikari/PRT-585-Group4

Timesheets:

Time_Sheet__DEV_Group_C.xlsx
Other - Group A
weekly timesheet individual_Min Shi.xlsx

Progress Report (Sai chandana Thumma S362823)

Weekly Tasks Summary (Week 1-9)

Week 1

During the first week, I concentrated on understanding the fundamental responsibilities of both a Business Analyst and a Tester. As a BA, I learned how to create and manage a GitHub repository, which is essential for project management and collaboration. I also explored several videos to gain a deeper understanding of the BA role. On the tester side Tester side, I focused on learning the day-to-day responsibilities, familiarizing myself with testing procedures through educational videos.

Week 2

In the second week, I expanded my knowledge of testing methodologies and the various tools that Business Analysts and Testers frequently use in the industry. I actively participated in BA activities like requirement gathering, which allowed me to write user stories and use cases effectively. These hands-on experiences helped bridge the gap between theory and real-world application.

Week 3

Week three was dedicated to honing my data visualization skills. As a Business Analyst, I practiced using Power BI in Excel to create charts and reports, a vital skill for presenting data-driven insights. I also delved into the PRINCE2 methodology, exploring its relevance in project management. Additionally, I sought guidance from ChatGPT to supplement my understanding of these topics.

Week 4

This week, I explored the integration of SQL server data with Power BI, enhancing my ability to handle data across multiple platforms as a BA. I also took time to deepen my SQL skills using SQL Server Management Studio (SSMS). On the Tester front, I practiced writing and executing SQL queries. I explored project management tools like Trello and began studying automation frameworks such as the Robot Framework, gaining foundational knowledge in automation testing.

Week 5

Week five saw further advancement in both roles. As a BA, I set up the 3-tier web application, building on the SQL basics I had learned earlier. For my Tester role, I focused on browser automation using Selenium, a vital skill for modern web testing. This included practicing SQL queries for data retrieval and manipulation, which are essential for data validation during testing.

Week 7

In week seven, I dedicated my efforts solely to the Business Analyst role. I learned how to create a comprehensive Business Process Document (BPD) and completed various sessions on LinkedIn Learning focused on Business Analysis. I also engaged in discussions around Business Requirement Documents (BRD) and refined my understanding of best practices for documenting business processes.

Week 8

This week, I undertook two projects: a Library Management System and a Hospital Booking System. My focus was on drafting both functional and non-functional requirements for these projects, allowing me to apply my BA skills in realistic scenarios. These projects gave me an opportunity to explore the critical roles that Business Analysts play in real-time situations.

Week 9

In the final week of this summary, I created a comprehensive document for a Sales and Inventory Management System project. This involved developing a professional business document, including a traceability matrix, which is a key component in tracking requirements throughout the project lifecycle. I also spent time reviewing best practices for documentation and ensuring adherence to industry standards.

Timesheets :

Weekly Time Sheets (sai).xlsx (individual)

Git hub links:

https://github.com/prashilthegreat/DevGroup-5.git

https://github.com/prashilthegreat/DevGroup-5.git

https://github.com/Dev-3-PRT585/Dev-3-PRT585.git

https://github.com/nepalmahan/Testing.git

https://github.com/S362823/Group-project.git

Progress Report (Neelam Sharma S366605)

Week 1(BA & Tester)

For BA, I learned how to create the git hub repository and watched the content related to the business analyst role.

For the Tester Role, read the articles about testing and the roles of a tester and watch the YouTube video regarding testing.

Week 2 (BA & Tester)

For BA, I learned about which tools are used for BA and searched ChatGPT for BA.

For Tester Role Learn which tools are used for testing; watch YouTube videos about how the industry works for a tester role.

Week 3 (BA & Tester)

For BA, learn how to assign tasks in Jira, what Power BI is, and what the use of Power BI is.

For Tester Role Learn about types of testing from chat GTP and Google Articles. Learn about the selenium tool from a YouTube video. What is selenium, and what are the different components of selenium?

Week 4(BA & Tester)

For BA, learn about the Tableau tool from YouTube, Power BI from YouTube, and how to use SQL data from ChatGPT.

For Tester Role Learn about web elements and element locators that are used in selenium web drivers. I watched a YouTube video on how to make a resume for a tester and learned about the SDLC life cycle.

Week 5(BA & Tester)

For BA, I practiced in Tableau to import data from an Excel sheet and data represented in different graphs. I searched the top 30 questions for the BA role and learned about SQL and how to connect with Tableau.

For the tester role, I Installed Java and ellipse and set up, practiced in an ellipse, ran the code element locators for the Selenium web driver, and watched videos on YouTube about automation testing.

Week 6 For the Role of BA

In week 6, I learned about BRD (Business Requirements Document) and I made one document for BRD.

Week 7 For the Role of BA

Learned about BPMN, use case diagram, ER Diagram, DFD, Gantt Chart State Diagram, RTM, and Activity Diagram.

Week 8 For the Role of BA

In Week 8, I made one BRD document and images for the library management system with the help of Plant uml.

Week 9 For the Role of BA

Watched YouTube video Additional Certification (Free)

Use this link for Prince2 certification for free

https://simpli-web.app.link/e/Y1zh7JVKXMb

and basic of testing.

Timesheets:

Weekly Time Sheets (1).xlsx (individual)

GitHub links:

https://github.com/prashilthegreat/DevGroup-5.git

https://github.com/prashilthegreat/DevGroup-5.git

https://github.com/Dev-3-PRT585/Dev-3-PRT585.git

https://github.com/nepalmahan/Testing.git

https://github.com/S362823/Group-project.git

Progress Report (Hafeez Ullah S368783)

Week 1

- **BA Role**: Learned the basics of business analysis, including requirement gathering, data analysis, and stakeholder communication. Explored different project methodologies like Waterfall and Agile.

- **Report Writing**: Focused on structuring professional reports, including executive summaries, and emphasized the importance of clarity and data visualization.

Week 2

- **BA Role**: Explored tools like Excel, Visio, and Power BI for data collection, analysis, and visualization. Created simple process models and dashboards.
- **Report Writing**: Applied business analysis findings to create structured reports with visual aids, ensuring clarity and effective communication.

Week 3

- **BA Role**: Advanced Power BI skills by connecting to multiple data sources and creating interactive dashboards.
- **Report Writing**: Integrated Power BI visuals into reports, enhancing them with titles, annotations, and data-driven narratives.

Week 4

- **BA Role**: Focused on data integration techniques, importing and exporting data between Power BI and other systems.
- **Report Writing**: Created comprehensive reports, combining data from multiple sources and ensuring consistency in formatting.

Week 5

- **BA Role**: Introduced to SQL databases, practiced writing basic queries, and explored data analysis through SQL.
- **Report Writing**: Documented the process of data extraction and analysis using SQL, detailing query usage and providing recommendations.

Week 6

- **BA Role**: Studied Business Requirement Specifications (BRS), focusing on scope, objectives, and requirement categorization.
- **Report Writing**: Drafted the initial sections of a BRS for a Hospital Management System, clearly outlining the project overview and scope.

Week 7

- **BA Role**: Defined functional and non-functional requirements for the Hospital Management System, focusing on system performance and user accessibility.
- **Report Writing**: Documented the requirements in a detailed and structured format with supporting diagrams.

Week 8

- **BA Role**: Defined user roles, interactions, and data requirements for the system, ensuring data integrity and privacy.
- **Report Writing**: Finalized the BRS, reviewed for consistency, and included visual aids to illustrate data flow and interactions.

Week 9

- **BA Role**: Reviewed the completed BRS and studied the next steps in business analysis, including change management during development.
- **Report Writing**: Prepared the BRS for stakeholder presentation, focusing on summarizing key findings in an executive summary.

Timesheet:

TimeSheet_Hafeez Ullah.xlsx (individual)

GitHub links:

https://github.com/prashilthegreat/DevGroup-5.git

https://github.com/prashilthegreat/DevGroup-5.git

https://github.com/Dev-3-PRT585/Dev-3-PRT585.git

https://github.com/S362823/Group-project.git