Report: Create a mobile web application and write a reflective report

Name: Maryam Albalam

Student ID: W22073324

#### **Declaration:** This report reflects my own personal experience. Generative AI was used to assist in coursework completion but was not used to write this report.

**Introduction:** Generative AI systems have become popular among programmers for delivering accurate code options for software development work github.blog. OpenAI’s ChatGPT alongside GitHub Copilot assist programmers through coding operations by functioning as AI programming assistants. I employed ChatGPT for immediate programming guidance while using GitHub Copilot to complete my programming code. This text describes Copilot as an "AI pair programmer" which accelerates programming efforts github.blog. I utilized both tools in my web and mobile development course projects throughout two distinct parts.

The first segment of coursework demanded the design of an advertising website which integrated HTML alongside CSS and PHP. The website had multiple pages spanning across Home, About and Credits pages with PHP includes controlling both header and footer sections while showing user reviews. The second part of the assignment required building the journaling application through a single-page React implementation. The foundation of the project came first from Vite – a fast modern build tool react.dev while I implemented design with Tailwind CSS – a utility-first CSS framework geeksforgeeks.org. The client-side page navigation adopted React Router in the React application while browser persistent storage through localStorage functioned to retain journal entries geeksforgeeks.org. I received aid from generative AI tools which assisted me during both development phases for coding together with debugging applications and resolving problems.

**Experiences:**

Development tasks required my use of ChatGPT and Copilot to address particular issues. AI tools are providing assistance in diverse areas through exemplary examples of use.

* Tailwind CSS enabled me to use AI for designing application layout and styling. The styled image upload box solution came from ChatGPT in response to my request followed by me implementing the Tailwind utility classes correctly. The input of class names into my code was offered to me through Copilot in real-time by sense and response AI. AI helped me shorten the time needed to create responsive CSS layout elements although I handled the manual styling process afterward.
* React app debugging led me to use ChatGPT as an assistant to solve bugs together with fixing them. Through its analysis of my applications React program ChatGPT detected an error in my state update logic which led to the correct solution for fixing the new journal entry display problem. The tool suggested implementing error detection mechanisms starting from JSON parsing points to stop program crashes. During my typing process Copilot was able to detect small programming errors such as missing imports. I used these tools to address problems more efficiently yet I checked all recommendations and confirmed my understanding of each correction.
* Part 1 of my application benefits from header/footer inclusion functionality through PHP: I directed ChatGPT to create separate header.php and footer.php files for incorporating into all pages. ChatGPT instructed me to build independent header.php together with footer.php files that needed to be incorporated into every webpage. By implementing the guidance I experienced immediate benefit because modifying the header file alone updated the menu throughout my website pages. The file path issue I encountered at first prompted ChatGPT to provide the solution which helped me resolve it. Using AI resulted in a decisive success as I learned an efficient web development method which would have escaped my attention otherwise.
* The second part involved the guidance of ChatGPT and Copilot to execute React Router integration along with persistent storage implementation. The system instructed me on creating routes in the application while showing how to implement React Router hooks including useNavigate to make page-to-page transitions between the journal list and add and edit displays. The recommendation from ChatGPT was to store journal information in the localStorage API while providing an example that showed data processing using JSON.stringify and JSON.parse. The writing system of Copilot generated numerous boilerplate sections automatically as I typed each statement. I efficiently accomplished page integration and data storage between sessions with this additional help.

The AI system provided multiple functions as a debugging tool and automatic code writer as well as design recommendations however I verified all outputs to remain in control of the final production.

**Conclusion :**

The implementation of generative AI techniques produced beneficial outcomes in my academic work. Through its use I became more efficient because it reduced the time needed to diagnose issues and reduced standard code blocks. During implementation I successfully added data storage features and built the routes by following AI guidance which resulted in correct initial output while AI advice for error management and including functions strengthened my code foundation. The ability of ChatGPT to explain new concepts instantly permitted me to learn more material during shorter periods of time.

I needed to monitor how dependent AI made me while using it for study purposes. The tools sometimes exhibit reliability issues which led me to double-check all generated snippets before thorough functional testing .github.blog Treating AI as a helpful peer instead of an authority helped me remain in control during the work process. When I approached AI as an assistant throughout my work I found that AI improved my output without eliminating my personal work contribution. The process helped me learn more about development by portioning AI advice and adding my own personal reasoning steps to it.

**References :**

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