## Week 2 (25/09/23 - 01/10/23):

* Project Meeting Highlights (25/09/23):
* Delved into the project plan, identifying target user demographics and integrating Human-Computer Interaction (HCI) principles for optimal interface usability.
* Conducted a thorough risk analysis to assess potential project challenges and their impact.
* Study and Research Progress:
* Completed chapters 1 and 2 of "Human-Computer Interaction" by Alan Dix on (26/09/23), gaining valuable insights into user engagement and effective design principles.
* Project Planning Milestones (27/09/23):
* Finalized a comprehensive project plan, detailing key milestones, deliverables, and timelines, setting a solid framework for the project's execution.
* Looking Ahead (28/09/23):
* Scheduled to commence the development of the website interface next week, aiming to apply learned HCI principles to the design process.
* Literature Review Completion (29/09/23):
* Concluded reading the paper by Sinha, Gaurav, Rahul Shahi, and Mani Shankar on "Human-Computer Interaction," enriching the project's theoretical foundation.

## Week 3, 02/10/23 - 08/10/23

* 02/10/23: Completed reading chapters 3 and 4 of "Human-Computer Interaction" by Alan Dix, gaining insights into user interface design and user experience principles.
* 03/10/23: Announced plans to start Part 2 of "Human-Computer Interaction" by Alan Dix the following week, focusing on advanced interaction techniques and design methodologies.
* 04/10/23: Decided to integrate CSS into the website, with considerations towards using Bootstrap for its rapid development capabilities and responsive design features.
* 05/10/23: Designed the layouts for three user interfaces using Canva, providing a visual blueprint to guide the development process towards a cohesive aesthetic.
* 06/10/23: Began constructing the basic website layout, laying down the foundation for further development, including the integration of interactive elements and content structuring.
* 07/10/23: Problem Encountered: Faced difficulties with CSS specificity and inheritance due to limited experience, leading to unexpected styling challenges. Solution: Adopted a modular CSS approach and utilized CSS variables for consistent styling and easier management.
* 08/10/23: Problem Encountered: Encountered issues with implementing responsive design elements for complex layouts. Solution: Employed media queries and flexbox to create fluid and adaptable layouts that respond to various screen sizes.
* 08/10/23: Initiated A/B testing for different UI elements to identify which designs achieve better user engagement and satisfaction, aiming to refine the user experience based on empirical data.

## Week 4, 09/10/23 - 15/10/23

* 09/10/23: Developed a basic shopping website with comprehensive styling, setting the stage for a user-centric retail experience.
* 10/10/23: Progressed through Part 2 of "Human-Computer Interaction" by Alan Dix, delving into chapters 5 to 7, enriching my grasp on strategies for boosting user engagement and optimizing design.
* 11/10/23: Problem Encountered: Struggled with mastering Bootstrap for responsive design; however, a specific YouTube tutorial (https://www.youtube.com/watch?v=-qfEOE4vtxE) greatly simplified the learning process.
* 12/10/23: Encountered issues with IntelliJ where my CSS files would not load properly. Solution: Transitioned all development work to Visual Studio Code, circumventing the problem attributed to the IntelliJ editor.
* 13/10/23: Conducted usability testing on the initial prototype of the shopping website, gathering valuable feedback to further refine the user interface and elevate the shopping experience.
* 14/10/23: Outlined plans to commence the development of the database interface, intending to implement a MySQL database for robust backend data management.
* 15/10/23: Began exploring "Designing the User Interface: Strategies for Effective Human-Computer Interaction" (6th Edition), to integrate established UI/UX practices into the project.
* 15/10/23: Planned implementation of a customer review system for the following week, aiming to foster user engagement and build trust through effective presentation and moderation of reviews.

## Week 5, 16/10/23 - 22/10/22

* 16/10/23: Began learning Java Swing through a comprehensive online tutorial (YouTube Link), enhancing my understanding of graphical user interface (GUI) development for Java applications.
* 17/10/23: Successfully developed the database and schema for the inventory management system, laying a solid foundation for its backend functionality.
* 18/10/23: Advanced my study in Human-Computer Interaction by covering chapters 8-10, focusing on advanced concepts and methodologies that underpin effective user interface design and user experience optimization.
* 19/10/23: Scheduled to begin the design and development of the database interface next week. A project status meeting is planned to discuss progress and outline upcoming tasks.
* 20/10/23: Delved into additional HCI resources, including exploring Jakob Nielsen's principles on "Designing for the Web" and engaging with articles on usability heuristics. These resources provided valuable insights into creating user-centered designs and enhancing web usability.
* 21/10/23: Problem Encountered: Faced challenges in integrating complex Swing components into the desired layout. Solution: Utilized IntelliJ IDEA, leveraging its built-in component builder with a graphical interface, which significantly streamlined the development process and enhanced the layout design.
* 22/10/23: Dedicated time to reviewing and applying feedback from previous project evaluations to current development tasks, ensuring continuous improvement and adherence to best practices in software development.
* 22/10/23: Initiated preliminary usability testing on the newly developed inventory system interface, gathering early feedback to guide further refinements and ensure a user-friendly experience.

## Week 6, 23/10/23 - 29/10/23

* 23/10/23: Completed reading chapters 10 and 11 of "Human-Computer Interaction," enhancing my grasp on user engagement strategies and design evaluation techniques.
* 24/10/23 (Learning and Research):
* Engaged with Scott Klemmer's lectures on Design Heuristics and Visual Design (parts 1 and 2), enriching my design skills and perspective.
* Progressed through sections 12.7, 13.4, 14.6 of "Human-Computer Interaction" by Alan Dix, focusing on intricate interaction design aspects.
* Advanced my knowledge with parts 7 to 10 of a Spring framework tutorial, bolstering my capabilities in developing robust Java applications.
* 25/10/23 (Project Meeting Insights & Further Studies):
* In a project meeting, justified my choice to avoid using a web framework or React, citing project requirements and the suitability of chosen technologies like Java Swing.
* Committed to enriching diary entries with daily progress notes for a detailed documentation of the development journey.
* Emphasized on identifying the target user base for the inventory application and considering device diversity.
* Continued with Scott Klemmer's lectures on Typography, Grids and Alignment, and more, applying these UI/UX principles to my project.
* Reviewed a summary of chapter 15 from "Human-Computer Interaction," integrating complex HCI concepts into my work.
* Completed parts 10 to 15 of the Spring tutorial, directly applying new techniques to project development.
* Initiated the interim project report, detailing the project's scope, objectives, and progress.
* 26/10/23 (Project Development):
* Delved into chapters 16.2, 16.3, 16.6, and 16.7 of "Human-Computer Interaction," exploring emerging HCI trends and technologies.
* Began drafting the introduction and abstract for the interim report, setting a solid foundation for a comprehensive project overview.
* Designed the report's contents page, finalizing the sections to ensure thorough coverage of all project dimensions.
* 27/10/23:
* Problem Encountered: Faced difficulties in applying complex HCI concepts within the project, leading to integration challenges. Solution: Embraced an iterative learning approach, applying theoretical concepts to practical scenarios for enhanced comprehension.
* 28/10/23:
* Problem Encountered: Struggled with maintaining a consistent development pace due to the simultaneous demands of research and documentation. Solution: Adopted a structured daily schedule to balance development, learning, and writing tasks efficiently.
* 29/10/23:
* Prioritized finalizing the interim report draft for the upcoming week, aiming for a comprehensive review with my supervisor before our meeting.

## Week 7, 30/10/23 - 05/11/23

* 30/10/23
* Explored and synthesized key points from "10 Principles of Effective Web Design" on Smashing Magazine, enhancing understanding of web design best practices.
* 31/10/23
* Delved into Jakob Nielsen's heuristics for interaction design, drawing valuable insights from "Designing for the Web: An Introduction to Human-Computer Interaction" and related resources, enriching the foundation for user-centric design approaches.
* Initiated the development of the Home page for the shopping website, applying principles learned from recent readings.
* Completed reading the main chapters of "Human-Computer Interaction" by Alan Dix, integrating comprehensive HCI concepts into the project framework.
* Progressed on drafting the interim report, consolidating project developments and insights.
* Additional Achievements This Week:
* Concluded a Swing GUI programming course, acquiring skills for developing the Java GUI for the notes application.
* Prepared to extend work on the interim report and commence Java GUI development for the notes application next week.
* Finalized drafts for the abstract and introduction sections of the report, setting a clear and engaging context for the project.
* Problems Faced and Solutions:
* Challenge with Home Page Layout: Encountered issues aligning elements responsively across devices. Solution: Applied flexbox and CSS grid techniques, ensuring a fluid and adaptable layout.
* Plans for Next Week:
* Continue the interim report with added research findings and user testing insights.
* Begin development of the Java GUI for the notes application, leveraging skills from the completed Swing course to create an intuitive and functional interface.

## Week 8, 06/11/23 - 12/11/23

* 06/11/23: Initiated the development of a GUI application template, setting a robust framework for future interface designs.
* 07/11/23: Drafted the project specification to outline the technical and functional requirements of the application comprehensively.
* 08/11/23: Enhanced the Notes application by integrating a new page and navigation bar, significantly improving its aesthetics beyond the initial prototype.
* 09/11/23: Completed a thorough draft of the literature review, synthesizing key insights and theoretical foundations relevant to the project.
* Outlined the addition of a new front page for the shopping website to showcase item previews, enhancing the initial user engagement.
* 10/11/23: Finalized the draft of the Aims and Objectives section, delineating clear goals and expected outcomes of the project.
* 11/11/23: Compiled detailed notes for the theory section of the report, preparing for an in-depth discussion on the project's conceptual underpinnings.
* 12/11/23: Overhauled the inventory interface, introducing a redesigned sidebar and navigation bar for enhanced user engagement and visual appeal, while consciously removing the overly vibrant color scheme of the initial prototype.
* Planned further enhancements to the Notes application, including the integration of a toolbar, tooltips, and additional HCI principles for an intuitive user experience.
* Faced challenges with integrating dynamic content into the shopping website, particularly in maintaining performance with real-time item updates. So I reduced the amount of real time updates

## Week 9, 13/11/23 - 19/11/23

* Developed a dedicated shopping basket page for the shopping website, enhancing user experience by streamlining the checkout process.
* Integrated placeholder items into the inventory system UI, providing a visual reference for system functionality and layout design.
* 14/11/23: Finalized the HCI goals for user interfaces within the report, outlining strategic design principles aimed at optimizing user interaction and satisfaction.
* 14/11/23: Completed the Target Audience section of the report, identifying and analyzing the primary users to tailor the user interface design effectively.
* 14/11/23: Finished drafting the section on HCI theory for the report, providing a comprehensive overview of the theoretical frameworks informing the project's design approach.
* 16/11/23: Concluded the draft of the Work Completed section of the report, detailing the progress and milestones achieved throughout the project's development phase.
* 16/11/23: Authored the conclusion for the report, summarizing key findings, outcomes, and reflections on the project's execution and impact.
* 16/11/23: Completed the homepage for the shopping website, creating a welcoming and intuitive entry point for users.
* 16/11/23: Initiated the development of the presentation, outlining the key sections to cover, focusing on conveying the project's objectives, methodology, results, and significance.
* Planned to finalize the report next week, aiming for a comprehensive document that encapsulates the project's entirety, ready for submission and review.
* Intended to redesign the homepage based on user feedback, ensuring the interface is user-friendly and meets the target audience's needs and expectations.
* Scheduled the creation of a settings page, aiming to enhance user customization and control over their preferences and interactions with the website.
* Anticipated challenges with finalizing the presentation to effectively communicate complex information in an accessible and engaging manner. Solution: Plan to use visual aids, concise language, and interactive elements to maintain audience interest and clarity. (17/11/23)

## Week 10, 20/11/23 - 26/11/23

* 20/11/23: the creation of a basic structure and layout for the presentation intended for supervisor review
* 21/11/23: Enhanced the user experience across the website by adding a new footer section on all pages, featuring quick links for easier navigation.
* Project Meeting Insights:
* Planned to add a timescale section in the report to outline deviations from the initial project plan due to unforeseen challenges.
* Highlighted the importance of integrating the theory of HCI more deeply within the report, ensuring principles reference back to foundational theories.
* Agreed on the necessity of introducing additional functionalities across the websites to enrich the user interface and experience.
* Conducted user testing for all three UIs, compiling feedback for future enhancements.
* Additional Activities and Achievements:
* 22/11/23: Developed a settings page, with accessibility options to cater to diverse user needs and promote inclusivity.
* 23/11/23: homepage for the inventory management system, streamlining access to system functionalities and enhancing the overall user journey.
* 24/11/23: Completed sections of the project report, Abstract, Aims and Objectives, Motivation, My Progress, and detailed discussions on HCI Theory and Principles, alongside reflections on Software Engineering practices.
* 25/11/23: the conclusion and conducted a thorough literature review, offering a critical analysis and contextual backdrop for the project.
* Finalized presentation drafts, focusing on project aims, the significance of HCI, and an in-depth project overview, preparing for an impactful presentation to stakeholders.
* Planned for Next Week (27/11/23 - 03/12/23):
* Aim to augment the shopping website with additional pages to diversify content and improve user engagement.
* Plan to enhance the Notes application with typing functionality, elevating its utility and user engagement.
* Challenge: Integration of new footer section led to unexpected layout shifts on some pages. Solution: Refactored CSS and utilized Flexbox to ensure consistent alignment and spacing across all devices. (22/11/23)
* Challenge: Difficulty in synthesizing user feedback into actionable changes without compromising the original design intentions. Solution: Organized feedback into categories based on usability, functionality, and aesthetic preferences, enabling targeted revisions that aligned with core design principles. (24/11/23)

## Week 11, 27/11/23 - 03/12/23

* 27/11/23: Drafted the conclusion and explanatory sections for the PowerPoint presentation, detailing project components, justifying design decisions, and summarizing key points.
* 28/11/23: Transitioned the project report documentation to a LaTeX template, enhancing the document's structure and readability.
* 29/11/23: Expanded the Notes application by incorporating additional components like save, edit, and more, thereby enhancing functionality and user interaction.
* 30/11/23: Finalized and submitted the presentation
* Problem Encountered: Struggled with Test-Driven Development (TDD) due to difficulties in locating buttons within embedded menus using the robot finder tool, resulting in temporarily skipped tests. Solution: Deferred specific tests while exploring alternative testing strategies to address the issue.
* 01/12/23: Encountered issues with AssertJ Swing testing within the TDD process, necessitating a restart of the Notes application development with Maven for better dependency management, specifically for JUnit 5 and AssertJ.
* 02/12/23: Faced challenges activating JUnit 5 testing post Java extension pack installation; the setup only functioned in a new project environment, necessitating code migration for testing continuity.
* 03/12/23: Integrated advanced components into the application, including font color changing capabilities and comprehensive listeners for all buttons, significantly improving the application's interactivity and user engagement.
* Next Steps for Week 12 (04/12/23 - 10/12/23):
* Aim to enhance the shopping website by introducing additional pages, thereby expanding content availability and user engagement.
* Intend to extend the inventory interface's functionality with features for adding and customizing inventory items, along with implementing settings and extra pages to apply various HCI principles and methodologies.

## Week 12, 04/12/23 - 10/12/23

* 04/12/23: Implemented a touchscreen mode feature for the Notes application, including a pop-up keyboard to enhance usability on touch-enabled devices.
* 05/12/23: Finalized the theory section of the project report, detailing foundational concepts and methodologies that underpin the project's design and implementation.
* 06/12/23: Dedicated time to practicing my presentation, developing a detailed script to ensure clarity and coherence in delivery.
* 07/12/23: Successfully delivered my project presentation at the university, sharing insights and outcomes with faculty and peers.
* Problem Encountered: Discovered that none of the TDD tests for the Notes application were passing due to the use of constructors for creating two menu bars, which made them inaccessible to tests. Solution: Consolidated the format menu into the home menu to allow the robot finder tool to differentiate and test them effectively, resolving the testing issue.
* Notes Application Enhancements:
* Introduced a touchscreen mode with a mock keyboard for improved accessibility.
* Added a side menu featuring undo and redo buttons to support efficient document editing.
* Implemented a full-screen mode, offering users an immersive editing experience.
* Database Interface Development:
* Created login and signup pages to facilitate user access management.
* Developed a two-factor authentication page to enhance security measures.
* Designed a cover page that introduces users to the application.
* Revised the main dashboard to display inventory items and included a submenu for customizing menus, improving navigation and user interaction.
* Incorporated a simple help button and popup on the home page, providing users with quick access to assistance and guidance.

Term 2

## Week 18, 15/01/24 - 21/01/24

* 15/01/24: Initiated planning for the final version of my website, focusing on this term's project. Utilized Figma for designing and visualizing the upcoming enhancements.
* 16/01/24: Successfully linked all pages within the database interface, ensuring seamless navigation throughout the system.
* 17/01/24: Developed a reusable loading page for transitions between sign-in and sign-out processes in the database interface, with potential application across other interfaces.
* Challenge Encountered: Faced difficulty in prioritizing tasks for the term, balancing the completion of three interfaces showcasing different HCI principles against the need to focus on the report. Solution: Scheduled a meeting with my supervisor for guidance on efficiently allocating my efforts and focusing on areas with the highest impact.
* 18/01/24: Decided to concentrate on developing website interfaces due to the design limitations experienced with Java Swing in the Notes application, aiming for a more aesthetically pleasing and user-friendly outcome. Planning to seek approval from my supervisor for this strategic pivot.
* 19/01/24: Began refining my project report, starting with enhancing the theory section by incorporating detailed analyses and additional citations based on feedback from the interim submission.
* Next Steps:
* Continue refining the website interface designs, focusing on user experience and the implementation of HCI principles.
* Prepare for the meeting with my supervisor to finalize the project's focus for the term, ensuring alignment with the project's objectives and academic requirements.
* Advance the development of the report by systematically addressing each section with the aim of deepening the content and strengthening the argumentation.

## Week 19, 22/01/24 - 28/01/24

* 22/01/24: Held a productive meeting with my supervisor to discuss the project's direction. Decisions were made to refocus efforts for optimal outcomes.
* 23/01/24: Updated the project's table of contents for the review section and revised the plan for Term 2 accordingly, submitting the revised plan to my supervisor.
* 24/01/24: After careful consideration and discussion, I've decided to concentrate on developing only two user interfaces (UIs) to manage time effectively between development and report writing.
* 25/01/24: Compiled all feedback from user testing of the shopping website and began implementing suggested design changes to enhance user experience.
* 26/01/24: Integrated screen reader accessibility into all pages of the shopping website, ensuring a more inclusive user experience.
* 27/01/24: Undertook a redesign of the Notes application's layout to improve its visual appeal and user interface.
* Implemented additional functionalities to the shopping website's basket page, improving the checkout process.
* Began drafting a section of the report focused on the design changes and development processes of the two chosen UIs.
* Adopted a more modular approach to the shopping website's styling by creating a main CSS file supplemented by sub-files dedicated to animations, enhancing maintainability.
* 28/01/24: Wrote about the HCI theory and the emotional impact of design, drawing on insights from user feedback and theoretical frameworks.
* Refactored the Notes application to increase modularity, separating the main GUI and menu bar into distinct classes with dedicated testing units.
* Enhanced the Notes application by adding functionality to 'Open', 'Save', 'New', and 'Exit' buttons within the file menu, streamlining user interactions.
* Explored Donald A. Norman's "Emotional Design," particularly chapters on the three levels of design (Visceral, Behavioral, and Reflective), to inform the theoretical basis of the project.
* Next Steps for Week 20 (29/01/24 - 04/02/24):
* Complete the items page on the shopping website, incorporating all design changes and functionality improvements based on supervisor feedback.
* Continue refining the database interface, focusing on enhancing modularity and integrating feedback from the supervisor to improve system architecture and user experience.
* Finalize and integrate the discussed design changes into the two selected UIs, ensuring all modifications are aligned with user expectations and HCI principles.

## Week 20, 29/01/24 - 04/02/24

* 29/01/24: Undertook a redesign of the settings page to ensure visual and functional consistency across the shopping website.
* 30/01/24: Implemented an option to hide the screen reader feature on the shopping website, enhancing accessibility options based on user preference.
* 31/01/24: Enhanced the items page, improving its visual appeal and integrating it with the new navigation bar; also included functionalities from the settings page for a cohesive user experience.
* 01/02/24: Achieved uniformity across all pages of the shopping website, ensuring a consistent and intuitive user interface.
* 02/02/24: Drafted a comprehensive section on the social impact of HCI within the project report, exploring how interface design influences user interaction and societal engagement.
* 03/02/24: Began integrating voice recognition functionality into the database interface, aiming to improve user interaction through advanced accessibility features.
* Problem Encountered: Faced challenges with the installation of the speech recognition API (webkitSpeechRecognition) in the browser. Solution: Initiated troubleshooting steps including reviewing API documentation, seeking community support, and considering alternative APIs for better compatibility.
* Planned Activities for Week 21 (05/02/24 - 11/02/24):
* Link all pages of the shopping website to enhance navigation and user flow throughout the site.
* Improve the visual appeal of the Notes application, focusing on UI enhancements to make it more engaging and user-friendly.
* Begin drafting the section on professional issues within the project report, planning to consult with my supervisor on content scope and depth.

## Week 21, 05/02/24 - 11/02/24

* 05/02/24: Encountered a complex issue with JUnit testing for Swing applications; resolved by utilizing an advanced Robot framework to simulate user interactions, significantly improving test reliability and coverage.
* 06/02/24: Successfully interconnected all pages of the shopping website, enhancing user navigation and overall experience.
* 07/02/24: Implemented custom JavaScript to overcome limitations with Bootstrap's modal functionality; this solution addressed form submission conflicts by employing the preventDefault() method, ensuring seamless modal operations during form actions.
* 08/02/24: Developed a custom JavaScript solution to replace Bootstrap's modal script, enabling more reliable and flexible modal display for user notifications.
* 09/02/24: Enhanced the website's modularity and maintainability by restructuring the directory and introducing a centralized main.js file, streamlining development and updates.
* 10/02/24: Introduced reusable components for the footer and modals, promoting consistency and reducing redundancy across the website.
* 10/02/24: Drafted a new section to highlight technical achievements, showcasing the innovative solutions and technologies employed throughout the project.
* 10/02/24: Launched a Notifications page featuring dynamic flashing notifications, a carousel display, and interactive elements to engage users.
* 11/02/24: Developed a comprehensive Contact Us page, incorporating user testimonials, an FAQ section, and interactive forms to foster community engagement.
* 11/02/24: Unveiled a Deals page, presenting time-sensitive offers, previews of upcoming deals, and exclusive promotions to incentivize user participation.
* 11/02/24: Added a versatile Toolbar to the notes application, integrating fully functional undo and redo features to enhance user experience.
* 11/02/24: Introduced an innovative inventory management feature, alongside the capability to generate custom reports, enhancing administrative efficiency.
* 11/02/24: Addressed issues with Bootstrap dropdowns causing layout distortions in the Navbar; rectified through meticulous CSS adjustments and JavaScript enhancements for flawless navigation.

## Week 22, 12/02/24 - 18/02/24

* 12/02/24: Enhanced the database website's Navbar for improved aesthetics and functionality, incorporating dropdown menus with integrated security features for enhanced user navigation and safety.
* 13/02/24: Developed a sales data visualization page, featuring interactive graphs and charts powered by JavaScript and the Charts.js library, offering a vivid and insightful representation of sales metrics. Learn more about Charts.js.
* 14/02/24: Implemented an interactive, responsive, and colorful graph display for sales data analysis within the database application, utilizing the Charts.js library to improve data comprehension and engagement.
* 15/02/24: Introduced a dynamic progress bar on the signup page to visually indicate password strength, with custom styling enhancements for a more intuitive user experience.
* 16/02/24: Addressed challenges in linking the password strength progress bar to a descriptive guide on improving password security; solved by utilizing a passwordDescription variable in HTML and a JavaScript function to update guidance as password strength changes.
* 17/02/24: Revolutionized the two-factor authentication (2FA) page by adding an animated microphone option for voice authentication, offering a more interactive and modernized security feature.
* 18/02/24: Created an interactive to-do list feature on the dashboard page, enabling users to efficiently manage tasks with options to add and remove items, enhancing productivity and organization.
* Throughout the Week: Reorganized the directory structure of the database website for improved modularity, separating JavaScript and CSS files and incorporating reusable components for the Navbar and footer, streamlining maintenance and development.
* During the Week: Comprehensively explored and documented key concepts such as Fitts' Law, interaction models, human cognition, and interaction techniques within the project report, enriching the theoretical foundation and practical application of design principles in the project.

## Week 23, 19/02/24 - 25/02/24

* 19/02/24: Initiated a dedicated branch for the React conversion of the database website, transitioning to Vite from Create React App for enhanced performance and ease of configuration.
* 20/02/24: Implemented JavaScript functionality to dynamically display random photos in the shopping website's items section based on category selection, involving extensive DOM manipulation.
* 21/02/24: Used an HTML validator to identify and correct markup errors, such as extraneous div tags, improving the website's performance and reliability.
* 22/02/24: Completed the literature review section of the project report, offering a comprehensive analysis of both academic and industry insights.
* 23/02/24: Resolved an issue with the progress bar incorrectly reverting to step 5 after credit card information entry by adjusting the progression logic and step indices.
* 24/02/24: Enhanced the progress bar's visual appeal and usability by adding color changes at each step for better visibility and a more intuitive user experience.
* 25/02/24: Addressed challenges in developing a touchscreen mode for the Notes app, including a popup activation notification and enlarging UI elements for better accessibility.
* 25/02/24: Focused on improving the touchscreen keyboard with features like predictive text and language options, despite not fully integrating the functionality.
* 25/02/24: Devised a workaround for linking the new print preview page with the main Notes app by simulating print actions through a method in the PrintPreview class.
* 25/02/24: Encountered difficulties integrating a NavBar React component, working towards resolving functionality issues.

## Week 24, 26/02/24 - 03/03/24

* 26/02/24: Encountered an issue with the loading spinner during the React conversion process. This was adeptly resolved by leveraging React's state management to dynamically control the spinner's visibility, enhancing user feedback during data loading operations.
* 27/02/24: Successfully adapted JavaScript functions for React compatibility, including a comprehensive redesign of the navbar to function seamlessly within the React ecosystem, ensuring a smooth transition and improved user navigation.
* 28/02/24: Transformed the cover page into React JSX format, simultaneously addressing issues with the help modal. This conversion streamlined the integration of interactive elements, providing a more cohesive user experience.
* 01/03/24: In the process of creating home.jsx, it became necessary to separate the sidebar from the navbar to accommodate their placement in distinct columns on the page, optimizing layout design and user interface coherence.
* 01/03/24: Addressed a React Fragment issue where the <tbody> tag's inclusion within a React Fragment hindered proper table rendering. By reorganizing the DOM structure to comply with React's rendering requirements, table functionality was fully restored.
* 02/03/24: Initiated the setup of a React testing framework using Jest, encountering a configuration error where Jest struggled to process CSS files. This was resolved by mocking static file imports, such as CSS and images, with the moduleNameMapper configuration in Jest, streamlining the testing process by bypassing non-JavaScript imports.
* 02/03/24: Encountered and resolved a package management error by purging the corrupted node\_modules folder and package-lock.json file, followed by a fresh installation of packages, ensuring a stable development environment.
* 03/03/24: Achieved a milestone in completing the conversion of the database website to React, marking a significant leap forward in the project's development.
* 03/03/24: Drafted the "My Progress" section of the project documentation, including detailed accounts of work completed, the design process, and the exploration of design methodologies beyond user-centered design (UCD) and Agile, offering insights into the application of HCI principles in design decisions.
* 03/03/24: Completed a comprehensive draft for the professional issues section, addressing ethical, social, and professional considerations in software development.
* Next Steps: Plan to complete unit testing for the database website to ensure robustness and reliability. Additionally, I plan to create documentation using JSDoc.

## Week 25, 04/03/24 - 10/03/24

* 04/03/24: Developed Jest tests for the sales data functionality but encountered a Jest configuration issue, leading to a necessary reinstallation for optimal test environment setup.
* 05/03/24: Addressed challenges in compiling JSDoc into a comprehensive documentation website by creating a detailed JSDoc configuration file, including all source files for effective conversion.
* 06/03/24: Launched a floating microphone and animated button for voice control on the shopping website, enhancing user interaction with voice commands.
* 07/03/24: Enabled the microphone button to mock-highlight parts of the page upon voice activation, simulating an element selection feature.
* 08/03/24: Integrated feedback messages to confirm the activation of accessibility options, ensuring users are informed about their interaction setting changes.
* 09/03/24: Added a carousel section for popular items on the shopping website, providing a dynamic visual showcase of trending products.
* 10/03/24: Implemented the intro.js library to introduce a guided tour feature on the shopping website, serving as an interactive tutorial for site navigation and features.
* Finalized the introduction and abstract sections of the project report, laying a solid foundation for the comprehensive documentation.
* Challenges with the Notes App Testing:
* Encountered testing difficulties related to the frame.menuBar() method in the Notes application. Resolved by leveraging the frame.robot() method to access the Robot instance for direct Swing component interaction, enabling component identification and manipulation for testing purposes. This solution emphasized the need for adaptability in testing strategies.

## Week 26, 11/03/24 - 17/03/24

* 11/03/24: Addressed a deprecation issue within the Material UI Swing library, specifically with the add(JComponent, Color, int, int) method in the mdlaf.animation.MaterialUIMovement class. Transitioned to utilizing the recommended getMovement method.
* 12/03/24: Developed and executed tests for the newly integrated customizable menu feature, incorporating the Material UI library to enhance the user interface's appearance.
* 13/03/24: Completed the draft of the project report and submitted it to my supervisor for review, detailing the project's objectives, development process, and challenges encountered.
* 14/03/24: Implemented functionality allowing users to drag buttons into a bottom menu and access an exit overlay, enhancing application interactivity.
* 15/03/24: Introduced a button for retrieving saved notes, facilitating easy access to previously stored information for users.
* 16/03/24: Integrated an auto-save toggle feature, providing users the option to enable or disable automatic note saving according to their preferences.
* 17/03/24: Added a themes menu and selector to the application, allowing users to customize their interface based on aesthetic preferences, and developed a function for creating and managing notebooks, aiding in the efficient organization of notes. Refined the Observer pattern implementation to suit the updated MVC architecture.

## Week 27, 18/03/24 - 24/03/24

* 18/03/24: Encountered testing challenges within the NotesModel due to a misuse of the singleton pattern. The NotesController constructor was mistakenly linked to NotesModel.getInstance(), directing unit tests towards the singleton instance rather than a mock model. Solution: Amended the constructor to properly utilize the passed-in model instance, aligning test interactions with the intended mock model.
* 19/03/24: Engaged in the refactoring of tests and Javadoc within the Notes application, aiming to enhance code clarity and maintainability.
* 20/03/24: Advanced the development of comprehensive documentation for the shopping website, outlining its features, functionalities, and providing user guidance.
* 21/03/24: Created detailed user manuals, offering clear instructions to support users in navigating and utilizing the application's features effectively.
* 22/03/24: Addressed and fixed an issue with the malfunctioning hamburger menu in the database interface, ensuring seamless navigation and an improved user experience.
* 23/03/24: Removed a non-functional hamburger toggler from the placeholder navbar, enhancing the UI's consistency and usability.