**Rayat Shikshan Sanstha’s**

**C. D. Jain College of Commerce, Shrirampur**

**TYBBA (CA) Progress Report**

**Academic Year 2023-2024**

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| **Name of The Project:** | EthicalDood 3.0: Empowering The Future of Programming | |
| **Project Platform** | Java (Desktop Application) | |
| **Name of the Student:** | Telore Ganesh Bhaskar | |
| **Mobile No:** | 8010486885 | |
| **Project Guide Name:** | Prof. Lande R.D | |
| **Project Period:** | **From:** 21/01/2024 **To:** 02/02/2024 | |
| **Project Description:** | | |
| **Week 2**   * In the first week, I successfully gathered all the necessary data for my project, setting the stage for its development. To guide the design process, I commenced the creation of Unified Modeling Language (UML) diagrams for Ethicaldood, serving as a comprehensive blueprint for project development. In this endeavor, I referred to reputable Java reference books such as "Programming with Java" by Balaguruswamy and "Core Java Volume I and II" by Cay S. Horstmann to grasp the intricacies of GUI application development. * Having constructed the UML diagrams, I transitioned to the practical phase of the project by designing the application's pages. My initial focus was on crafting an engaging homepage featuring a well-organized navigation bar with categorized features, setting the tone for the user experience. To enhance the project's identity, I created a distinctive logo and favicon. * Recognizing the critical role of the homepage as the first point of contact for users, I prioritized making it both attractive and interactive. Understanding that the landing page significantly influences users' perceptions, I aimed to create a visually appealing and user-friendly interface to captivate and retain their interest. * During the development process, a challenge arose when I encountered difficulty implementing a scrollbar, a concept unfamiliar to me at that point. Seeking assistance, I turned to the Snapchat AI, which guided me in understanding and applying the JScrollPane to the frame, specifying its dimensions for an optimal user experience. * The homepage development phase concluded with the successful incorporation of external (.ttf) fonts, contributing to an improved visual interface. To facilitate user communication, I integrated social links, allowing users to connect with me for assistance or feedback. * The primary challenge encountered during homepage development was the need to invoke another process from the current homepage's navigation bar. After discussing this issue with my guide, the proposed solution involved leveraging Java package concepts. However, a significant hurdle arose due to the use of the latest JDBC driver for connecting to the MySQL database, which housed all project data, including the elements associated with my project ID. * Despite my prior knowledge of JDBC connectors for database connections, the suggested package solution proved incompatible with my project. This was attributed to the fact that, given the use of the command prompt (cmd) to run Java programs, importing dependencies, including the MySQL connector JAR file, became a critical concern. In order to find a viable solution, I turned to both reference books and the Snapchat AI. * Ultimately, I discovered the class `ProcessBuilder`, which provided a convenient mechanism for invoking external commands or programs. By creating a class file that encapsulated all necessary MySQL connector dependencies, akin to a standalone program, this class resolved the compatibility issues and facilitated the seamless execution of the required processes. This successful resolution underscored the importance of utilizing diverse resources and problem-solving approaches in the development process. * The challenge of invoking external processes was effectively addressed by adopting the `ProcessBuilder` class, which provided a practical solution to overcome compatibility issues related to MySQL connector dependencies within the context of using the command prompt to execute Java programs. This experience reinforced the significance of exploring various tools and references in the problem-solving journey. * The second week marked significant progress in the project, encompassing the creation of UML diagrams for design clarity and the development of an interactive and visually appealing homepage. Overcoming challenges with newfound knowledge and leveraging external resources, I navigated the intricacies of GUI application development, setting a solid foundation for the project's future phases. | | |
| **Project Guide Name and Signature**  Prof. Lande R.D | | **Name of the Student and Signature**  Telore Ganesh Bhaskar |