**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: Empowering the Future Programming | |
| **Project Platform** | Java (Desktop Application) | |
| **Name of the Student:** | Telore Ganesh Bhaskar | |
| **Mobile No:** | 8010466885 | |
| **Project Guide No:** | Prof. Lande R.D | |
| **Project Period:** | **From:** 4/02/2024 **To:** 16/02/2024 | |
| **Project Description:** | | |
| **Week 3**   * In the second week, I successfully created a homepage with working navbars so the user can easily navigate through one page to another. Now it’s the time to built programming languages sections where multiple programming languages lies with code snippets and video tutorials also. I have cover more than 7 languages with all its topics and explaining the code via video tutorial medium. to utilize memory I decided to use web browser to open pdf files instead of using pdfbox external library which obviously takes some memory space to read and show pdf files over gui application. * After successfully integrating PDF files into the browser, the next challenge emerged: executing video tutorials. With only two video tutorials recorded, I opted to test their execution using Java. Since my default video player is PotPlayer, clicking on the corresponding button prompts the browser to execute the video file using PotPlayer. * Expanding the project, I ventured into creating a user code repository to allow users to showcase their coding expertise. To enhance security for sign-up and sign-in processes, I chose to store usernames and passwords in the database in an encrypted format using Base64 encryption. This ensures that even if someone attempts to hack the database, the stored data remains secure. Moving forward, I developed a user file showcase section where registered users can view contributors to EthicalDood and the codes they have uploaded. Additionally, I implemented a form using JTextField and Buttons, incorporating validation to restrict users to uploading only PDF files, as per project requirements. * To further enrich the project, I consulted with my guide for suggestions. They recommended adding ebooks covering various programming languages. Inspired by teachers testing their students' understanding, I decided to implement a MCQ test for users. The test includes practical and logical questions, challenging users with difficult questions. Users must score 10 out of 10 to progress to another language, making the test both rigorous and rewarding. * Observing similar websites, I noted the importance of providing users with notifications for new content additions. Thus, I incorporated a feature to notify registered users via email or WhatsApp messages when new content is posted on EthicalDood. Leveraging the Jakarta Mail Library for Java mailing features ensures seamless and unlimited email notifications to users, keeping them engaged and informed about updates on the platform. * Staying abreast of evolving technologies presents a formidable challenge in software development, underscoring the importance of remaining up-to-date with the latest advancements. In line with this imperative, I have opted to utilize JDK 21, the most recent version available, ensuring that the project leverages cutting-edge features and optimizations. Embracing the latest JDK version not only enhances the project's compatibility with modern systems but also empowers it with the newest functionalities and improvements. This proactive approach underscores my commitment to delivering a software solution that not only meets current standards but also anticipates future trends in technology. By embracing the latest tools and technologies, I aim to ensure the project's longevity and relevance in the fast-paced landscape of software development. * In this manner, the third week has been dedicated to searching for innovative features and seamlessly integrating them into my project. This ongoing quest for enhancements reflects a commitment to staying at the forefront of technology and delivering a dynamic user experience. As each new feature is meticulously implemented, the project evolves, becoming increasingly robust and feature-rich. The journey of exploration and implementation is not only a testament to dedication but also serves as a foundation for future growth and development. With each passing week, the project inches closer to its full potential. | | |
| **Project Guide Name and Signature**  Prof. Lande R.D | | **Name of the Student and Signature**  Telore Ganesh Bhaskar |