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Assignment: Final

Date: 12.03.2024

Notes: Report

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Report:

1. Reflection (*What did you learn?*)----> The **CallingOut App** is a social media platform I designed to help people address their frustrations, resolve conflicts, and improve relationships through open and honest communication. The app allows users to "call out" others with structured messages (CallOuts) and provides tools like replies, reactions, and notifications to enhance these interactions. This project helped me to expand my knowledge of how to design and implement a modular and scalable application and follow all SOLID principles. For example, I made sure that each class focused on a single responsibility, used abstraction and interfaces to promote flexibility, and made the code extendable without altering its core structure. The notification system is abstracted through the **AbstractNotification** class so that if I want to add a push notification or other format notification will easily be able to do so. I also have compositions where appropriate for flexibility and modularity. For instance, I designed **Reply** and **Reaction** to include only the sender's information, as the receiver is tied to the **CallOut** class, this keeps the code simple and is good for reusability. The **User** class serves as the app's central component, managing CallOuts, notifications, and user actions. I used a custom linked list (**CallOutList**) to dynamically store and retrieve CallOuts, making the app efficient and scalable. Additionally, recursion was used in the **Reply** class to handle and display nested replies. I also applied functional programming concepts like map, filter, and reduce in the **NotificationManager** to simplify notification handling. I think I created a clear and logical structure. This project has been an important learning experience, teaching me the importance of clean code, abstraction, and scalable design. I plan to improve it further by implementing group chats, public CallOuts, and voicemail functionality. I am proud of what I have accomplished, this project and the CS 5004 class have greatly increased my understanding of Object Oriented Design Principles and programming in Java. Thank you! Thank you! Thank you!
2. Extensions(*What extensions are you requesting?*) I have created a **README** file, and added Javadoc comments, I have a Main class for comprehensive testing, as well as the UML diagram.
3. **Grading Statement (Based on the rubric, what grade do you feel you deserve? Be honest.)** – > maybe 95
4. Academic integrity statement —> *I have submitted AIC in the pdf file signed.*