**Project Title: Password Generator App**

Introduction: This java project includes exception handling, multi-threading, generics, polymorphism and graphical user interface to create a password generator app. This app takes an integer length of the password from the user and generates basic or strong types of passwords of that certain length.

How it works: The user inputs a password length and chooses between basic or strong password and clicks generate. When the user clicks on generate, the program generates a password with one second delay to make it more realistic. The password is shown in the text.

Graphical User Interface: I used JFrame, JPanel, JButton, JLabel, JTextField, JComboBox, and JTextArea from javax.swing package to build the interface.

Exception handling: This app is very robust. It handles user input exceptions. This program has try catch block to handle user input that is lesser than one or non-integer inputs.

Multi-threading: When the user clicks generate a new thread is created to make one second delay to make the app more realistic.

Polymorphism: I created PasswordStrategy method to implement in one of these methods, BasicPassward or StrongPassword method. The user can choose between these.

Generics: This app uses generics to string manipulation.

Conclusion: This app helped me to learn the java object-oriented programing like polymorphism, interface etc. It also helped me to learn GUI, exception handling, multi-threading and generics while it also has real life uses.