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**Project Name: EnigmaMachine**

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**Synopsis: This program is the starting program for the Enigma Machine**

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package enigmamachineproject;

import java.io.BufferedReader;

import java.io.File;

import java.io.FileNotFoundException;

import java.io.FileReader;

import java.io.IOException;

import java.util.Scanner;

import java.util.logging.Level;

import java.util.logging.Logger;

// this is the parent class. it is extended in the child class EnigmaMachineProject.

// basically everything that happens here can be used by the code below; basically I don't have to keep copying

// this code down below

// this small snippet of code is being reused over and over again because of inheritance

// so the program doesnt have to keep repeating code every time the program paints a screen

class ScreenPainter {

static void painter(String fname) throws FileNotFoundException, IOException {

if (System.getProperty("os.name").contains("Windows")) {

try {

new ProcessBuilder("cmd", "/c", "cls").inheritIO().start().waitFor();

} catch (InterruptedException ex) {

Logger.getLogger(ScreenPainter.class.getName()).log(Level.SEVERE, null, ex);

}

}

else {

File infile = new File(fname);

BufferedReader br = new BufferedReader(new FileReader(infile));

String st;

st = br.readLine();

while (st != null) {

st = br.readLine();

if (st != null)

System.out.println(st);

}

}

}

}

// inheritance is being used here to paint the screens and to drive the process

class EnigmaMachineProject extends ScreenPainter {

public static void main(String[] args) throws IOException {

int numbentered;

EnigmaMachineProject myscr = new EnigmaMachineProject();

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/WelcomeScreen.txt");

System.out.println(" Press 1 to continue: ");

Scanner inw = new Scanner(System.in);

numbentered = inw.nextInt();

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/MainMenuScreen.txt");

System.out.println(" Enter the number of the program you would like to run: ");

Scanner in = new Scanner(System.in);

numbentered = in.nextInt();

if (numbentered == 1) {

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/InformationScreen.txt");

System.out.println("Press 1 to continue to the Encryption screen");

Scanner inencrypt = new Scanner(System.in);

numbentered = inencrypt.nextInt();

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/EncryptionScreen.txt");

} else {

if (numbentered == 2) {

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/InformationScreen.txt");

System.out.println("Press 1 to continue to the Decryption screen");

Scanner indecrypt = new Scanner(System.in);

numbentered = indecrypt.nextInt();

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/DecryptionScreen.txt");

} else {

if (numbentered == 3) {

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/ExitScreen.txt");

System.out.println("Press 1 to exit the program");

Scanner inexit = new Scanner(System.in);

numbentered = inexit.nextInt();

EnigmaMachineProject.painter("/Users/cameronvillnave/Desktop/ScreenBuilder/BlankScreen.txt");

System.exit(0);

}

}

}

Scanner myObj = new Scanner(System.in); // Create a Scanner object

int menuSelection = myObj.nextInt(); // Read user input

System.out.println("Option selected is: " + menuSelection); // Output user input

EncryptionClass myEMessage = new EncryptionClass();

DecryptionClass myDMessage = new DecryptionClass();

if (menuSelection == 1) {

// this is where you will call the method to obtain the message to be encrypted

myEMessage.encryptData();

System.out.println("Option selected is: " + menuSelection); // Output user input

}

else if (menuSelection == 2) {

// this is where you will call the method to obtain to message to be decrypted

myDMessage.decryptData();

System.out.println("Option selected is: " + menuSelection); // Output menu selection

} else {

// this where you will exit the program

java.lang.System.exit(0);

}

}

}