13.Write java program where user will enter loginid and password as input. The password should be 8 digit containing one digit and one special symbol. If user enter valid password satisfying above criteria then show “Login Successful Message”. If user enter invalid Password then create InvalidPasswordException stating Please enter valid password of length 8 containing one digit and one Special Symbol.

**Code:-**

**import java.io.IOException; import java.util.Scanner;**

**public class Exp15 extends Exception{ public static void isValid(String password)**

**throws AuthenticationException**

**{**

**if (!(password.length() >= 8) )**

**{**

**throw new AuthenticationException(1);**

**}**

**if (true) {**

**int count = 0;**

**// check digits from 0 to 9 for (int i = 0; i <= 9; i++) {**

**// to convert int to string**

**String str1 = Integer.toString(i);**

**if (password.contains(str1)) { count = 1;**

**}**

**}**

**if (count == 0) {**

**throw new AuthenticationException(2);**

**}**

**}**

**if (!(password.contains("@") || password.contains("#")**

**|| password.contains("!") || password.contains("~")**

**|| password.contains("$") || password.contains("%")**

**|| password.contains("^") || password.contains("&")**

**|| password.contains("\*") || password.contains("(")**

**|| password.contains(")") || password.contains("-")**

**|| password.contains("+") || password.contains("/")**

**|| password.contains(":") || password.contains(".")**

**|| password.contains(", ") || password.contains("<")**

**|| password.contains(">") || password.contains("?")**

**|| password.contains("|") || password.contains("\_") )) { throw new AuthenticationException(3);**

**}**

**}**

**public static void main(String[] args) { Scanner sc=new Scanner(System.in); String pwd;**

**System.out.print("Enter userid : "); String userid = sc.nextLine();**

**try {**

**System.out.print("Enter password :: "); pwd = sc.nextLine();**

**isValid(pwd); System.out.println("Valid Password");**

**System.out.println("Login Successful Message");**

**}**

**catch (AuthenticationException a) { System.out.print(a.getMessage()); System.out.println(a.printMessage());;**

**}**

**}**

**}**

**class AuthenticationException extends Exception { int passwordConditionViolated = 0;**

**public AuthenticationException(int conditionViolated) {**

**super("Invalid Password: "); passwordConditionViolated = conditionViolated;**

**}**

**public String printMessage()**

**{**

**// Call constructor of parent Exception**

**// according to the condition violated switch (passwordConditionViolated) {**

**// Password length should be**

**// between 8 to 15 characters**

**case 1:**

**return ("Password length should be atleast 8characters");**

**// Password should contain// at least one digit(0-9) case 2:**

**return ("Password should contain"**

**+ " at least one digit(0-9)");**

**// Password should contain at least**

**// one special character ( @, #, %, &, !, $ ) case 3:**

**return ("Password should contain at "**

**+ "least one special character");**

**}**

return ("");

}

}