1. **package** com.org.gen.test;

**import** java.util.Scanner;

**import** java.util.\*;

**public** **class** UserMainCode {

**public** **static** **int** calculateElectricityBill (String str1, String str2, **int** input3) {

**int** n1 = Integer.*parseInt*(str1.substring(5, str1.length()));

**int** n2 = Integer.*parseInt*(str2.substring(5, str2.length()));

**int** n = Math.*abs*((n2 - n1) \* input3);

**return** n;

}

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

String s1 = sc.nextLine();

String s2 = sc.nextLine();

**int** n = sc.nextInt();

**int** n1 = *calculateElectricityBill*(s1, s2, n);

System.***out***.println(n1);

}

}

Output:

ABC2012345

ABC2012660

4

1260

2. **package** com.org.gen.test;

**import** java.util.Scanner;

**public** **class** UserMainCode1 {

**public** **static** **void** main(String[] args) {

Scanner s = **new** Scanner(System.***in***);

String s1 = s.next();

**boolean** color = *validateColorCode*(s1);

**if** (color == **true**)

System.***out***.println("Valid");

**else**

System.***out***.println("Invalid");

}

**public** **static** **boolean** validateColorCode(String str) {

**boolean** color = **false**, color1 = **false**;

String s1 = str.substring(1, str.length());

**if** (str.length() == 7)

**if** (str.charAt(0) == '#')

color1 = **true**;

**if** (color1 == **true**)

**for** (**int** i = 0; i < s1.length(); i++) {

**char** c = s1.charAt(i);

**if** (c != '#') {

**if** (s1.matches("[A-Fa-f0-9]{6}|[A-Fa-f0-9]{3}"))

color = **true**;

**else** {

color = **false**;

**break**;

}

}

}

**return** color;

}

}

Output:

#FF9922

Valid

3. **package** com.org.gen.test;

**import** java.util.Scanner;

**public** **class** UserMainCode3 {

**static** **int** calculatenCr(**int** n, **int** r) {

**return** *fact*(n) / (*fact*(r) \*

*fact*(n - r));

}

**static** **int** fact(**int** n) {

**int** res = 1;

**for** (**int** i = 2; i <= n; i++)

res = res \* i;

**return** res;

}

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

**int** n = sc.nextInt();

**int** r = sc.nextInt();

System.***out***.println(*calculatenCr*(n, r));

}

}

Output:

4

3

4

4. **package** com.org.gen.test;

**import** java.util.Scanner;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

String a = sc.nextLine();

**if** (UserMainCode4.*validatePassword*(a) == 1) {

System.***out***.println("Valid");

} **else** {

System.***out***.println("Invalid");

}

}

}

**package** com.org.gen.test;

**public** **class** UserMainCode4 {

**static** **int** validatePassword(String a) {

**int** d = 0;

**if** (a.length() >= 8) {

**if** (a.contains("#") || a.contains("@") || a.contains("\_")) {

**char** c = a.charAt(0);

**if** (Character.*isAlphabetic*(c)) {

**char** dd = a.charAt(a.length() - 1);

**if** ((Character.*isAlphabetic*(dd)) || (Character.*isDigit*(dd))) {

**return** 1;

}

}

}

}

**return** -1;

}

}

Output:

Ashok\_23

Valid