

### Home work :

1. Write a java method ; that calculate vowels(i,o,e,u) in a string

You can use : **str.charAt(i)**

**ex : str= "ahmed" =>str.charAt(0) =>a**

### Solution :

```
public static int count_Vowels(String str) {  
    int count = 0;  
    int length= str.length();  
    str=str.toLowerCase() ;  
    for (int i = 0; i < length; i++) {  
        char ch =str.charAt(i) ;  
        if (ch == 'a' || ch == 'e' || ch == 'i' || ch== 'o' || ch == 'u') count++;  
    } //end if  
    } //end loop  
    return count;  
}
```

2. Write a Java method to check whether an entered string is a valid password.

Password rules:

- A password must have at least eight characters, and
- A password must consists of only letters and digits.

**Note : write method for each : is\_Letter and is\_digit**

### Solution :

```
public static boolean is_Valid_Password(String password) {  
    if (password.length() < PASSWORD_LENGTH) return false;  
    for (int i = 0; i < password.length(); i++) {  
        char ch = password.charAt(i);  
        if (is_Numeric(ch) || is_Letter(ch)) ;  
        else return false;  
    }  
    public static boolean is_Letter(char ch) {
```

```

        //ch = Character.toUpperCase(ch);

        return (ch >= 'A' && ch <= 'Z') || (ch >= 'a' && ch <= 'z');
    }

    public static boolean is_digit(char ch) {
        return (ch >= '0' && ch <= '9')
    }
}

Main :

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

    System.out.print("1. A password must have at least eight characters.\n" +
        "2. A password consists of only letters and digits.\n" +
        "Input a password (You are agreeing to the above Terms and Conditions.): ");

    String s = input.nextLine();

    if (is_Valid_Password(s)) {
        System.out.println("Password is valid: " + s);
    } else {
        System.out.println("Not a valid password: " + s);
    }

    return true;
}

```