Lab Activity 3

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Batch : B6

Title - Basic Java Programming

1) Write a program to accept three digits (i.e., 0 - 9) and print all its possible combinations. (For example, if the three digits are 1, 2, 3 then all possible combinations are: 123, 132,321)

Code

lab3_ques1.java > ...

```java
import java.util.Scanner;

public class lab3_ques1{
    Run | Debug
    public static void main(String[] args) {
        System.out.println("Enter any 3 non-repeating digits");
        Scanner sc= new Scanner(System.in);
        int n1 = sc.nextInt();
        int n2= sc.nextInt();
        int n3= sc.nextInt();
        if(n1==n2 || n2==n3 || n3==n1) {
            System.out.println("You entered repeating digits.");
        }
        else{
            String x=String.valueOf(n1);
            String y=String.valueOf(n2);
            String z=String.valueOf(n3);
            System.out.println("All possible outcomes are: ");
            System.out.println(x+y+z+" , "+y+z+x+" , "+z+x+y+" , "+z+y+x+" , "+x+z+y+" , "+y+x+z);
        }

    }

}
```

Output

```
PS E:\codes\java\lab 3>  & 'c:\Users\Sarvagya Gupta\.vscode\extensions\vscjava.vscode-jav
0.12.7-hotspot\bin\java.exe' '-Dfile.encoding=UTF-8' '-cp' 'C:\Users\Sarvagya Gupta\AppDa
a\jdt_ws\lab 3_af84e7f6\bin' 'lab3_ques1'
Enter any 3 non-repeating digits
1 4 2
All possible outcomes are:
142 , 421 , 214 , 241 , 124 , 412
PS E:\codes\java\lab 3>
```

2) Write a Java Program to accept 10 numbers in an array and compute the square of each number. Print the sum of these numbers.

Code

lab3_ques2.java > lab3_ques2

```java
import java.util.Scanner;

public class lab3_ques2{
    Run | Debug
    public static void main(String[] args){
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter elements of array:");
        int x=0;
            int arr[]= new int[10];
            int arr2[]= new int[10];
            for(int i=0;i<10;i++){
                arr[i]= sc.nextInt();
            }
            for(int i=0;i<10;i++){
                arr2[i]= arr[i]*arr[i];
            }
            for(int i=0;i<10;i++){
                x = x + arr[i];
            }
            System.out.println("The square of all numbers are: ");
            for(int i=0;i<10;i++){
                System.out.print(arr2[i]+" ");
            }
            System.out.println("");
            System.out.println("The sum of all numbers is = "+ x);
    }
}
```

Output

```
PS E:\codes\java\lab 3> e:; cd 'e:\codes\java\lab 3' ; &
les\Eclipse Foundation\jdk-11.0.12.7-hotspot\bin\java.ex
5f010fd487cbc73b17a\redhat.java\jdt_ws\lab 3_af84e7f6\bi
Enter elements of array:
3 6 2 1 9 7 9 3 1 0
The square of all numbers are:
9 36 4 1 81 49 81 9 1 0
The sum of all numbers is = 41
PS E:\codes\java\lab 3>
```

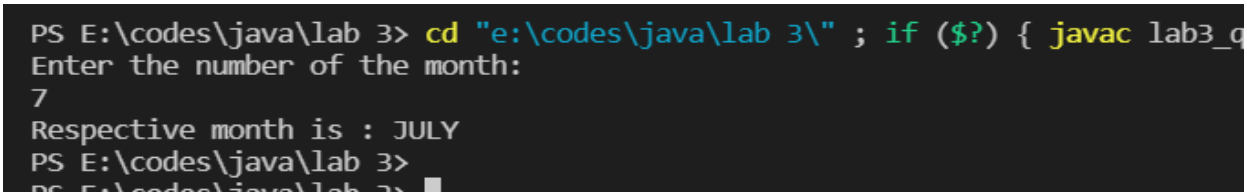
3) Write a program to input a number of a month (1 - 12) and print its equivalent name of the month. (e.g 1 to Jan, 2 to Feb. 12 to Dec.)

Code

```java
import java.util.Scanner;

public class lab3_ques3{
    Run | Debug
    public static void main(String[] args) {
        System.out.println("Enter the number of the month: ");
        Scanner sc = new Scanner(System.in);
        int n1 = sc.nextInt();
        String[] arr=new String[] {"JANUARY","FEBRUARY","MARCH","APRIL","MAY","JUNE","JULY","AUGUST","SEPTEMBER","OCTOBER",
        "NOVEMBER","DECEMBER"};
        if(n1>=0 && n1<=12) {
            System.out.println("Respective month is : "+ arr[n1 - 1]);
        }
        else {
            System.out.println("Invalid number entered");
        }
    }
}
```

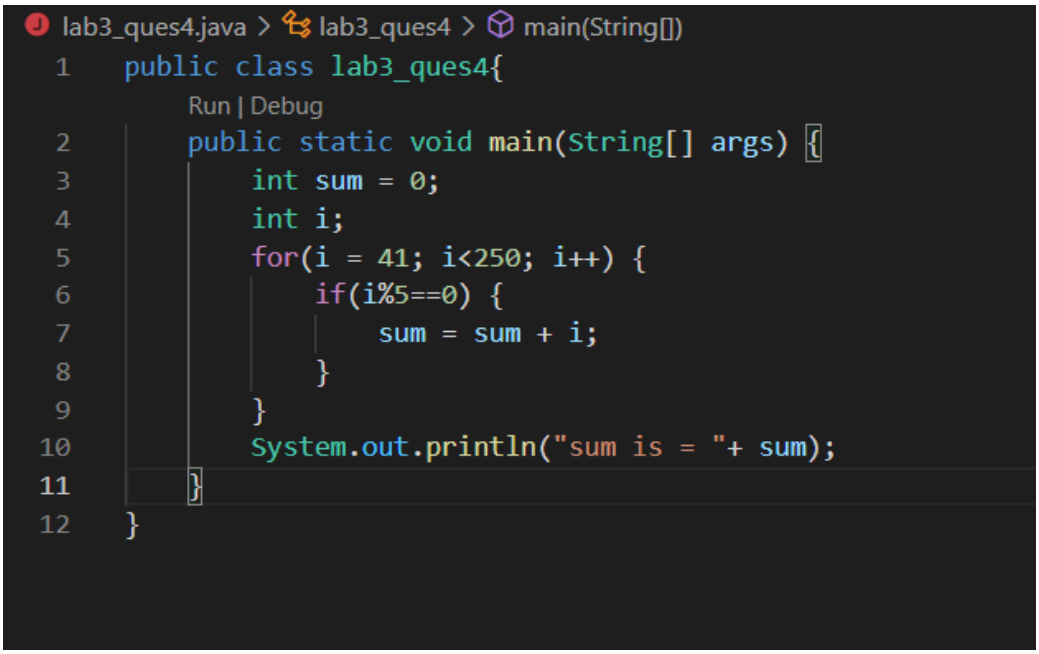
Output



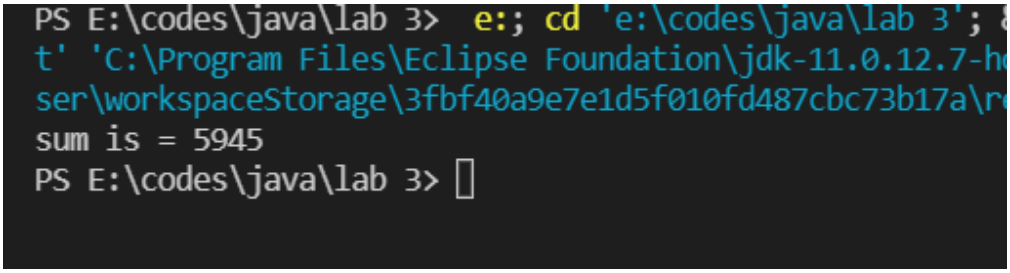
```
PS E:\codes\java\lab 3> cd "e:\codes\java\lab 3\" ; if ($?) { javac lab3_q
Enter the number of the month:
7
Respective month is : JULY
PS E:\codes\java\lab 3>
```

4) Write a program to find the sum of all integers greater than 40 and less than 250 that are divisible by 5.

Code

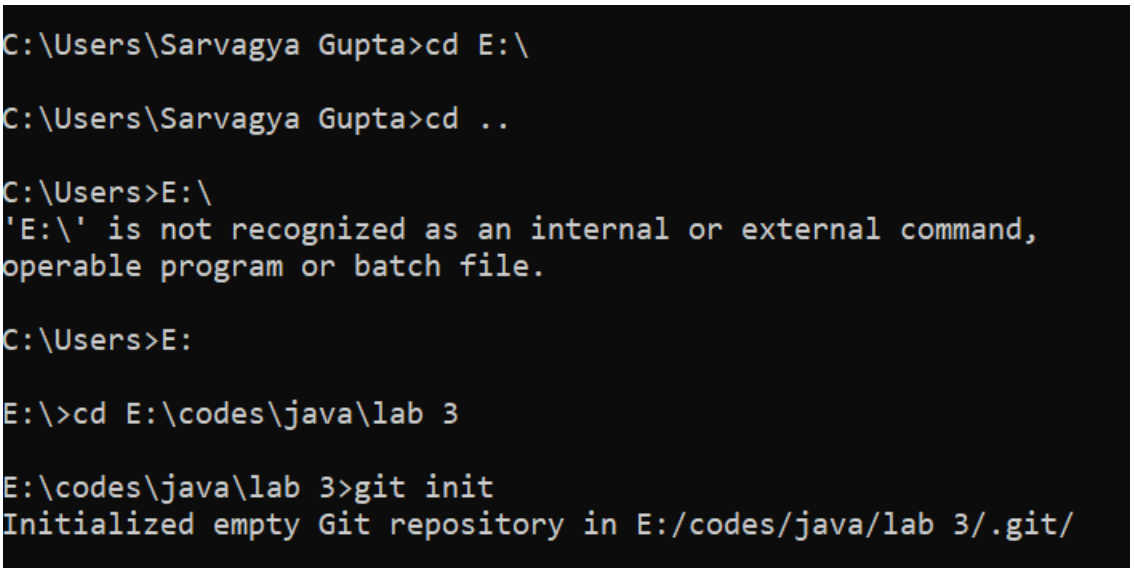


Output

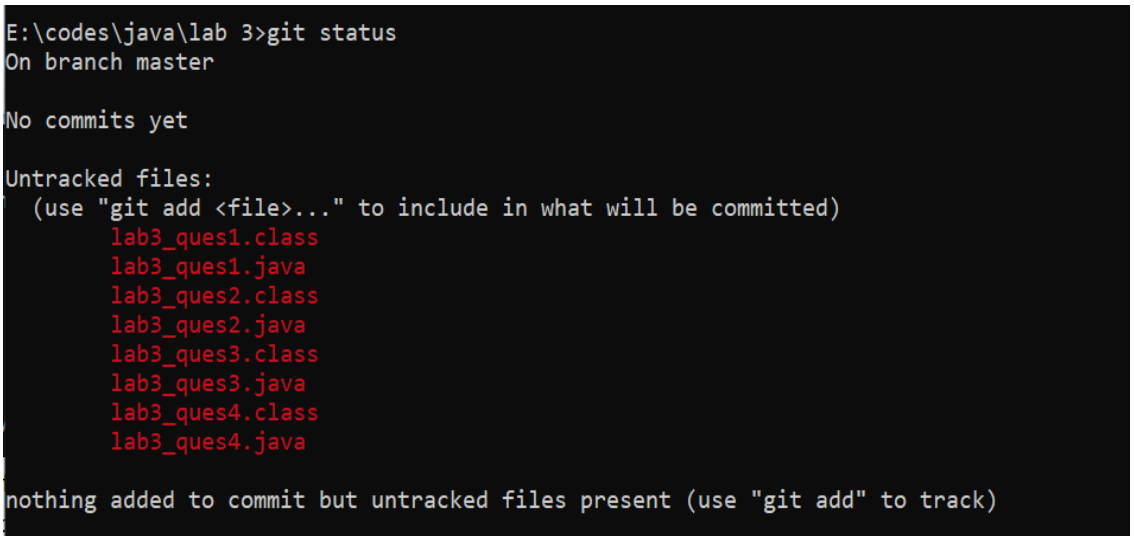


Git Commands

1. **git init -** It is used to create a new Git repository. It can be used to convert an existing, unversioned project to a Git repository or initialize a new, empty repository.



2. git status - The git status command displays the state of the working directory and the staging area. It tells us about the changes that have been staged, which haven't, and which files aren't being tracked by Git.



3. git add . OR <FILENAME> - The git adds command adds a change in the working directory to the staging area. It tells Git that you want to include updates to a particular file in the next commit.

```
E:\codes\java\lab 3>git add .

E:\codes\java\lab 3>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   lab3_ques1.class
        new file:   lab3_ques1.java
        new file:   lab3_ques2.class
        new file:   lab3_ques2.java
        new file:   lab3_ques3.class
        new file:   lab3_ques3.java
        new file:   lab3_ques4.class
        new file:   lab3_ques4.java
```

4. git commit -m "Some Comment" - It records changes to the repository. Users can also add comments while saving their files.

```
E:\codes\java\lab 3>git commit -m "oops lab3 activity "
[master (root-commit) 1ff2da9] oops lab3 activity
 8 files changed, 77 insertions(+)
 create mode 100644 lab3_ques1.class
 create mode 100644 lab3_ques1.java
 create mode 100644 lab3_ques2.class
 create mode 100644 lab3_ques2.java
 create mode 100644 lab3_ques3.class
 create mode 100644 lab3_ques3.java
 create mode 100644 lab3_ques4.class
 create mode 100644 lab3_ques4.java
```

5. git log - The git log command shows a list of all the commits made to a repository.

```
E:\codes\java\lab 3>git log
commit 1ff2da936faf9c28eb01c626f377c6277eefefe6 (HEAD -> master, origin/master)
Author: SarvagyaGupta-06 <sarvagyagupta2@gmail.com>
Date:   Mon Aug 30 20:39:24 2021 +0530

    oops lab3 activity
```

6. git diff - This command shows the changes between commits, working tress, etc.
7. git reflog - Reflogs track when Git refs were updated in the local repository.
8. git branch - This command allows you to create, list rename, and delete branches.
9. git checkout -b //CREATE A NEW BRANCH - The git checkout command lets you navigate between the branches created by the git branch.
10. git remote add origin https://github.com/SarvagyaGupta-06/oops_lab3.git - When you clone a repository with git clone, it automatically creates a remote connection called origin pointing back to the cloned repository.

```
E:\codes\java\lab 3>git remote add origin https://github.com/SarvagyaGupta-06/oops_lab3.git
error: remote origin already exists.
```

11. git clone https://github.com/SarvagyaGupta-06/oops_lab3.git - git clone is a Git command-line utility that is used to target an existing repository and create a clone, or copy of the target repository.
12. git push origin master - git push -u origin master is used for pushing local content to GitHub.

```
E:\codes\java\lab 3>git push -u origin master
Everything up-to-date
Branch 'master' set up to track remote branch 'master' from 'origin'.
```

Github Programmes