07/08/2020

Java DailyFlash

Q.1) write a program to count number of digits in a number

```java
class program1 {
    public static void main ( String [ ] args) {
        int num = 12345;
        int rem = 0;
        int count =0;
        while ( num ! =0 ){
            rem = num %10;
            count = count +1;
            num = num / 10;
        }
        system.out. println ("number of digits :" + count);
    }
}
```

• Dry Run

Variables	Conditions	Statements	Incre/decre
num	num ! =0 rem = num %10 count++	num = num/ 10	
12345	12345 ! =0 ✓	5	1	1234
1234	1234 ! =0 ✓	4	2	123
123	123 ! =0 ✓	3	3	12
12	12 ! =0 ✓	2	4	1
1	1 ! =0 ✓	1	5	0
0	0 ! =0 ✗			

Q.2) write a program to print addition of even digits
and multiplication odd digits from number.

```
class Program2 {
    public static void main (String [] args) {
        int num = 12345;
        int rem = 0;
        int sum = 0;
        int mul = 1;
        while (num != 0) {
            rem = num % 10;
            if (rem % 2 == 0) {
                sum = sum + rem;
            }
            else
            {
                mul = mul * rem;
            }
            num = num / 10;

            S.o.P ("Addition of even digits :" + sum);
            S.o.P (" multiplication of odd digits:" + mul);
        }
    }
}
```

- **Dry Run**

variables	Conditions	statements		pncre/decre	
num	num!=0	rem=num%10 rem%2==0	sum etc mul	num=no	
12345	12345!=0 ✓	5 5%2==0 ✗		5	1234
1234	1234!=0 ✓	4 4%2==0 ✓ 4			123
123	123!=0 ✓	3 3%2==0 ✗		15	12
12	12!=0 ✓	2 2%2==0 ✓ 6			1
1	1!=0 ✓	1 1%2==0 ✗		15	0
0	0!=0 ✗				

Q.4) Write a program to print maximum digit from a number

```java
class Program4 {
    public static void main( String [] args) {
        int num = 12357798;
        int num1 = num;
        int rem = 0;
        int var = 0;
        while ( num != 0) {
            rem = num % 10;
            if (rem > var) {
                var = rem;
            }
            num = num / 10;
        }
        S.O.P("The maximum digit from number " + num1 + " is " + var);
    }
}
```

- Dry Run

variables	conditions	statements			Pncre/decre	
num	num!=0	rem= num%10	if(rem>var)	var=rem	num=/10	
12357798	✓	8	8>0 ✓	8	1235779	
1235779	✓	9	9>8 ✓	9	123577	
123577	✓	7	7>9 ✗		12357	
12357	✓	7	7>9 ✗		1235	
1235	✓	5	5>9 ✗		123	
123	✓	3	3>9 ✗		12	
12	✓	2	2>9 ✗		1	
1	✓	1	1>9 ✗		0	
0	✗					

Q.5) write a program & prints the average of all the Hos

```
class Program 5 {
    p.s.v.m (String [] args) {
        int num = 12345;
        int num1 = num;
        int rem = 0;
        int count = 0;
        int avg = 0;
        int sum = 0;

        while (num1 = 0) {
            rem = num % 10;
            count ++;
            sum = sum + rem;
            num = num / 10;
        }

        avg = sum / count;
        S.O.P("The avg. of digits from
                    number" + num1 + "is " + avg);
    }
}
```

- **Dry Run**

Variables **conditions** **statements** **incre/decre**

num	num]= 0	rem = num%10	count++	sum= sum+rem	num=/10
12345	✓	5	1	5	1234
1234	✓	4	2	9	123
123	✓	3	3	12	12
12	✓	2	4	14	1
1	✓	1	5	15	0
0	✗				

avg = sum / count
avg = 15 / 5 = 3