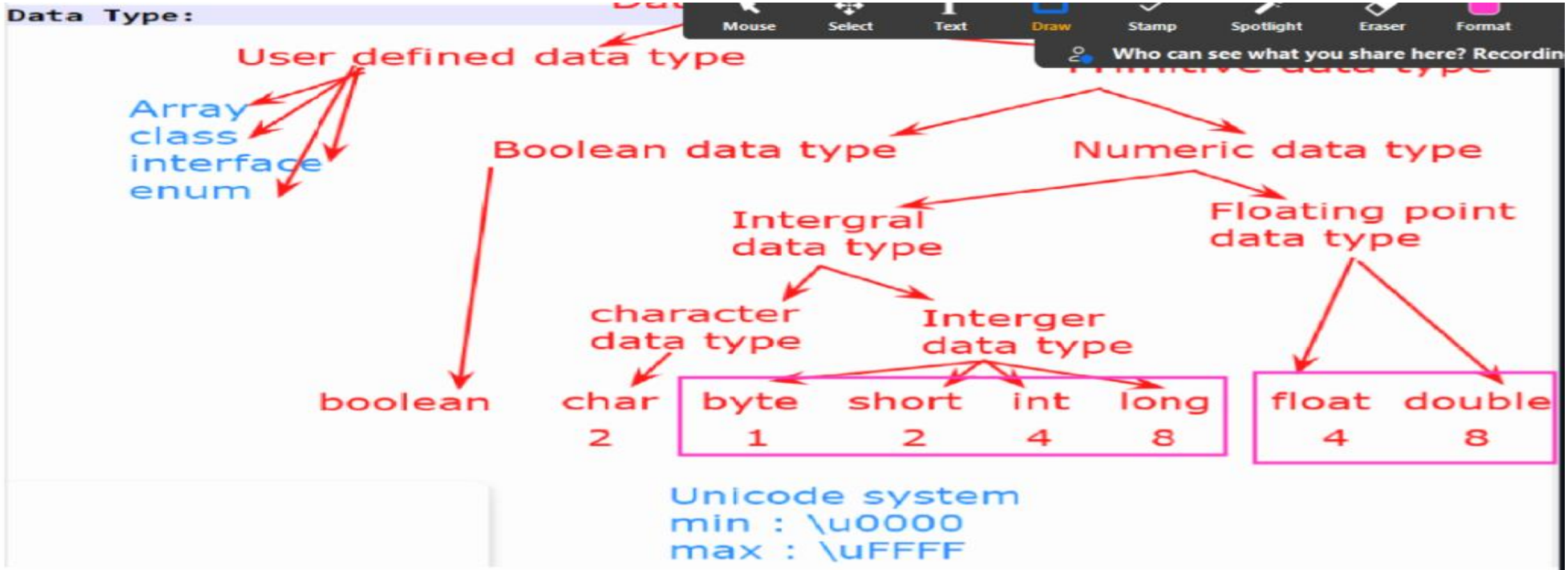
Concepts of Programming
Day 2: March 2022

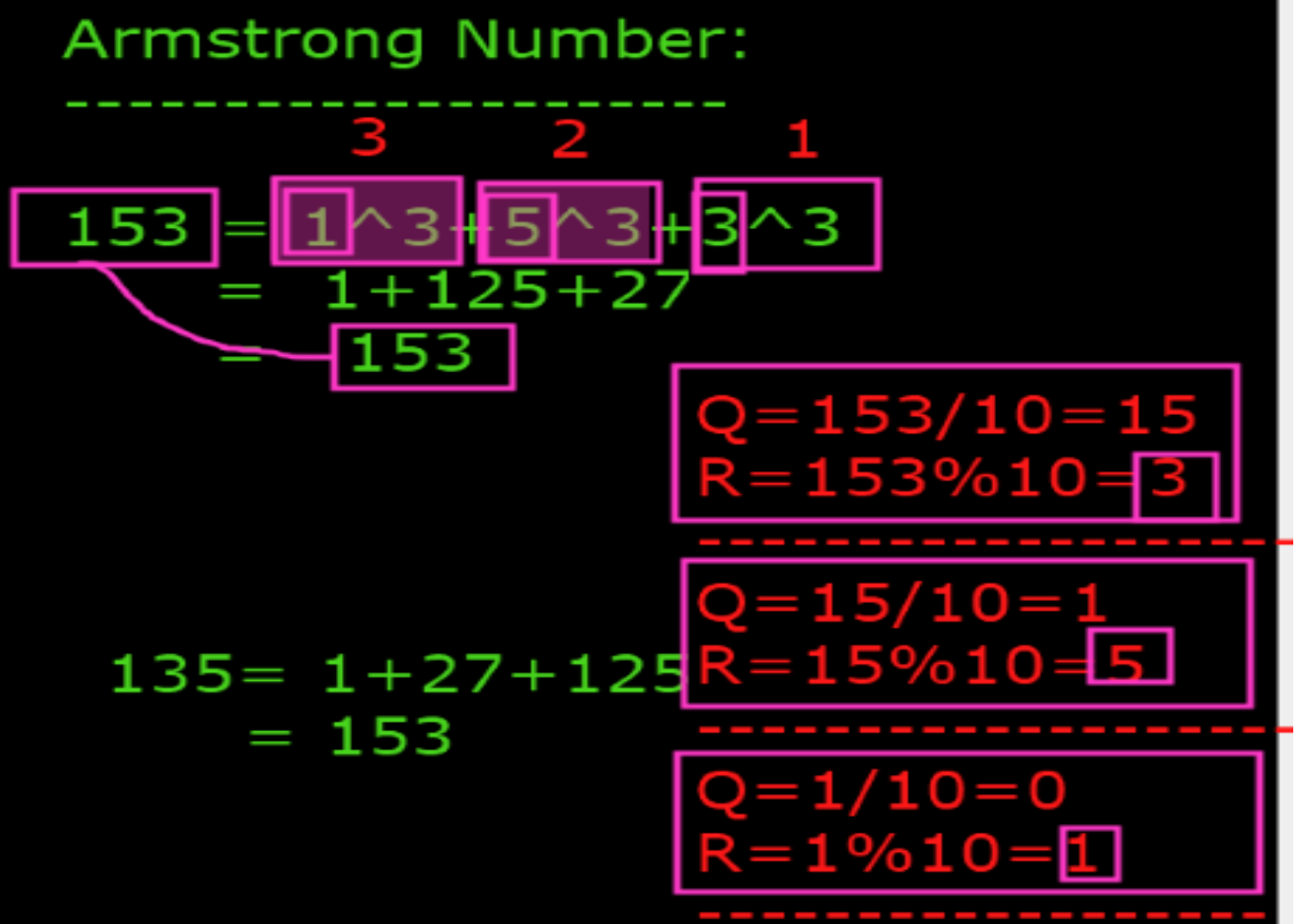
Kiran Waghmare

Outlines

-Class
-Object
-Features of Java
-OOPS concepts
-Programs




```java
class Primitive
{
    public static void main(String args [])
    {
        boolean b = true; //true/false
        byte by =127;
        short sh =555;
        int i =99999;
        long l = 9999999999L;
        System.out.println(b);
        System.out.println(by);
```



```
import java.util.*;

class Armstrong
{
    public static void main(String args[])
    {

        Scanner sc = new Scanner(System.in);
        int n1=sc.nextInt();
        int temp = n1;//153
        int res;
        int sum=0;
        while(n1>0)
        {
            res=n1%10;
            sum=sum+(res*res*res);
            n1=n1/10;
        }

        if(temp == sum)
                System.out.println("Armstrong Nunber");
        else
                System.out.println("Not an Armstrong Nunber"

    }
}
```

```java
import java.util.*;

class Armstrong
{
    public static void main(String args[])
    {

        Scanner sc = new Scanner(System.in);
        int n1=sc.nextInt();
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        while(n1>0)
        {
            res=n1%10;
            sum=sum+(res*res*res);
            n1=n1/10;
        }

        if(temp == sum)
                System.out.println("Armstrong Nunber");
        else
                System.out.println("Not an Armstrong Nunber");

    }
}
```
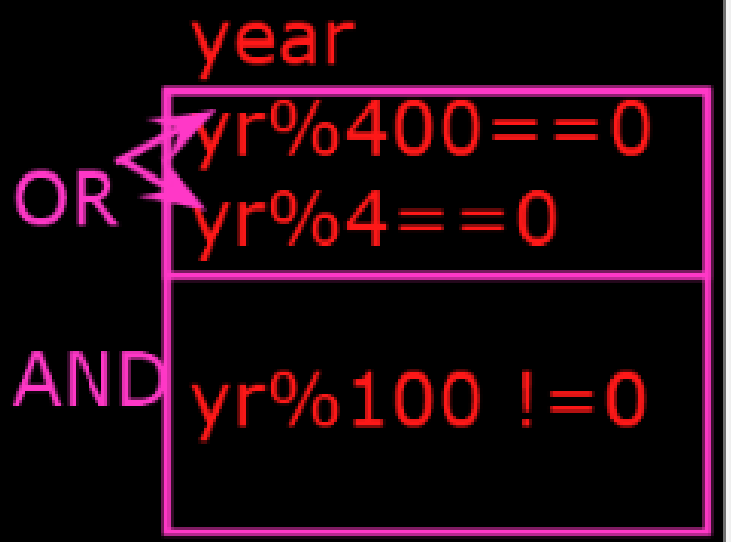
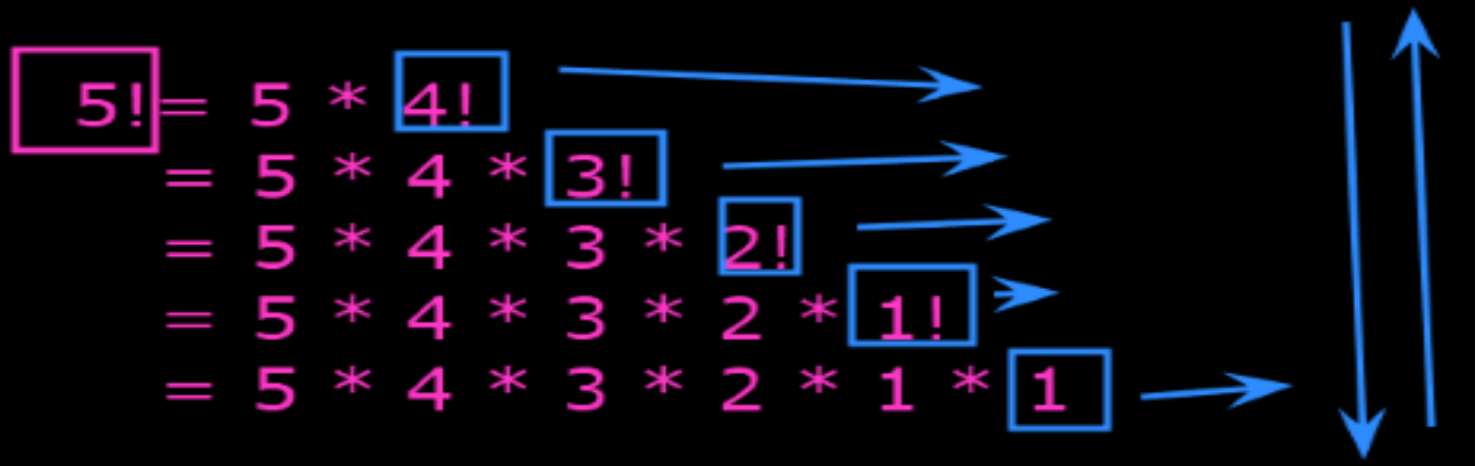

n1=1/10=0
temp=153
sum=152+1=153
res=1

```
if((yr%400==0)||(yr%4==0)&&(yr%100!=0))
```



Factorial




```
int fact=1;
```

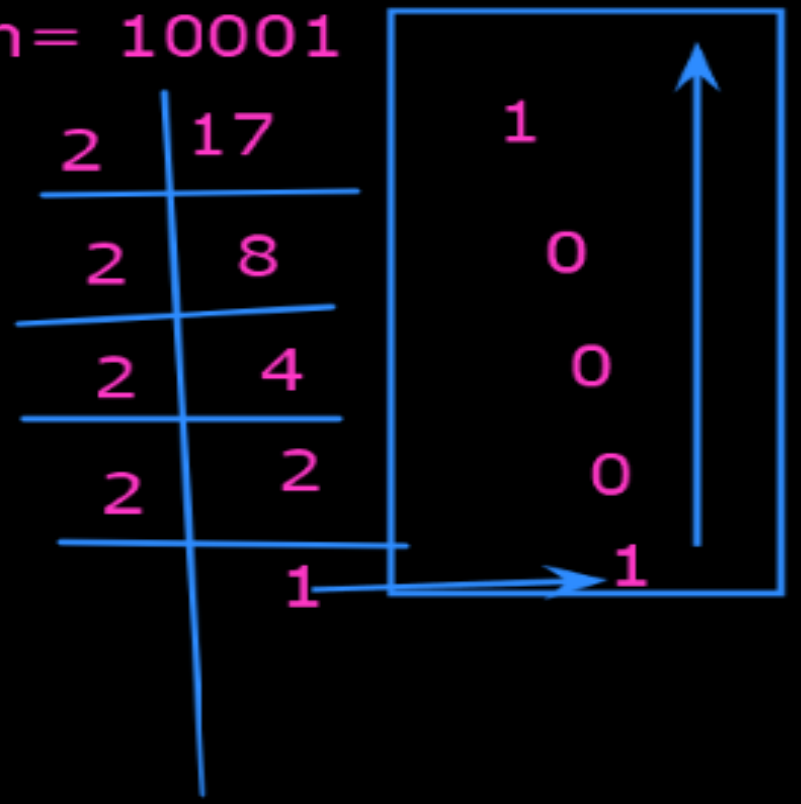
```
fact=5!
for(int i =1;i<=fact;i++)
{
    fact=fact * i;
}
```

DEcimal to Binary Conversion

```
n=17;
  String bin="";
while(n>0)
{
    int r =n%2
    bin = bin + r;
    n=n/2

}

   SOP(bin);
```

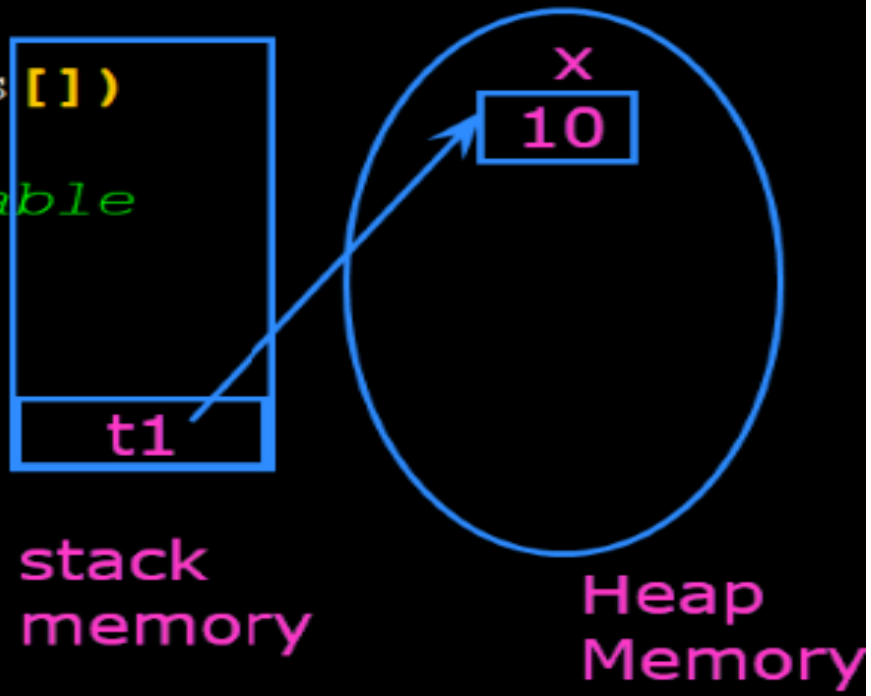
Dec: 17

Bin= 10001

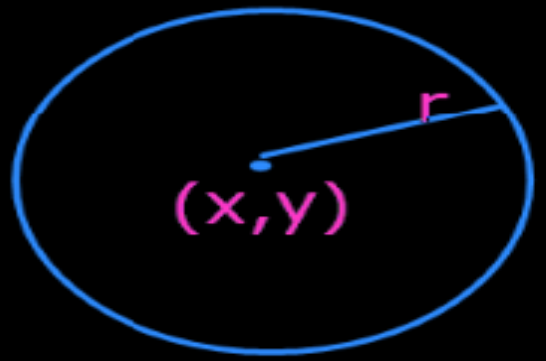


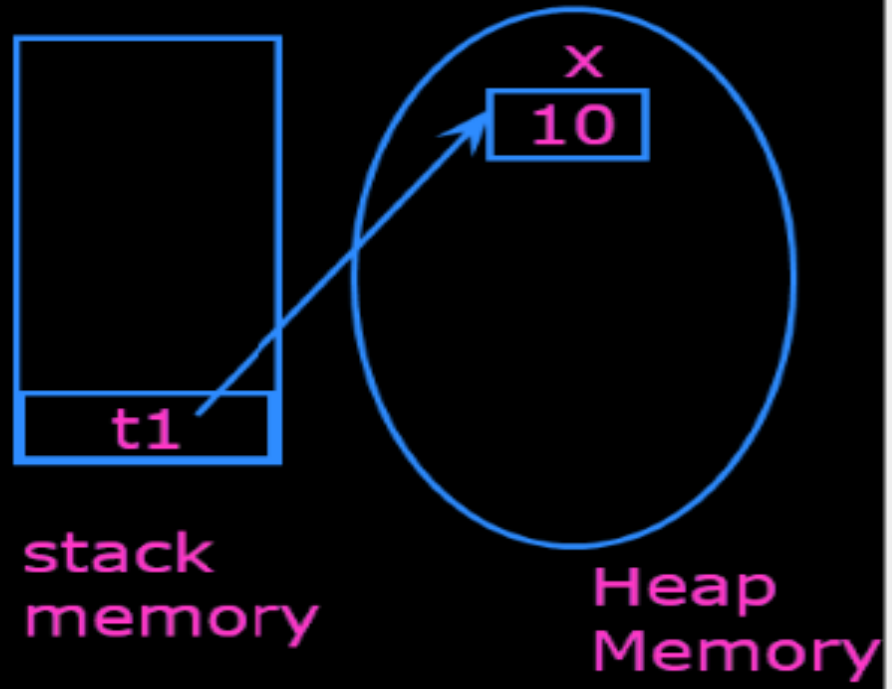
Q=n/2
R=n%2

```java
class Test
{
    int x=10;//class variable/instance variable

    public void display()
    {
        System.out.println("Hello CDAC Mumbai!!!");
    }


    public static void main(String args[])
    {
        //create object:reference variable
        Test t1 = new Test();
        System.out.println(t1.x);
        t1.display();
    }
}
```



```
class Circle
{
    int r;
area()
{
    int a=3.14*r*r;
}

main()
{
    Circle c1 =new Circle();
    c1.r=5;
    SOP(c1.area());
}
}   Circle c2 = new Circle();
```





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