

Wrapper Class

Java has primitive datatypes that's why java is 99% Object Oriented programming language. Primitive datatypes which is not to be extended and which can't create any object in heap segment to store values. But frameworks works on objects only. So, java isn't purely OOPL. To overcome these we have Wrapper classes.

Primitive Datatype	Wrapper class
char	Character
byte	Byte
short	Short
int	Integer
long	Long
float	Float
double	Double
boolean	Boolean

- In primitive datatype we initialize a value like this **int a=10;**
- In Wrapper class we initialize a value like this **Integer a=10;** which mean it **Integer a=new Integer(value:8);** It is replicate.

Boxing

- `int a=11;`
`Integer num =new Integer(a); //Integer num=a;`

There are two types of boxing.

- **Autoboxing**
Which is converting automatically from primitive to object datatype then it is auto boxing.

Ex:

```
int a=11;  
Integer num =new Integer(a); //Integer num=a;
```

- **Unboxing**
- Getting the value from Object type to Primitive datatype.

Ex:

```
Int num2=num.intValue();
```

```

package com.kodnest.java;

import java.util.Scanner;

public class Main1 {

    public static void main(String[] args)

    {

        Scanner scanner=new Scanner(System.in);
        System.out.println(" enter a character");

        char ch=scanner.next().charAt(0);

        scanner.close();
        identifyCharacter(ch);

    }

    public static void identifyCharacter(char ch)

    if(Character.isDigit(ch))
    {
        System.out.println("the entered character"+ch+" is Digit");
    }
    else if(!Character.isLetter(ch))
    {
        System.out.println("Entered Character "+ch+" is soecial Character");
    }
    else
    switch(Character.toLowerCase(ch)){
        case 'a':
        case 'e':
        case 'i':
        case 'o':
        case 'u':
        if(Character.isLowerCase(ch))
        {
            System.out.println(" entered Character is "+ch+" is Lower case vowel");
        }
        else
        {
            System.out.println(" entered Character is "+ch+" is Uppercase vowel");
        }
        break;
        default:
        {
            if(Character.isLowerCase(ch))
            {

```

```
        System.out.println(" entered Character is "+ch+" is LowerCase  
Consonant");  
    }  
    else  
    {  
        System.out.println(" entered Character is "+ch+" is Uppercase  
Consonant");  
    }  
}  
  
}
```

Output

```
enter a character  
A  
entered Character is A is Uppercase vowel
```