1)Binding of data and corresponding methods into a single unit is called Encaptulation.
Every data member inside the class should be decleared as private,and to access this private data we need to have setter and getter methods that is called data Hiding.

2)Features of Encapsulation

- We can achieve security.
- Enhancement become easy/.
- Maintanability and modularisation becomes easy.
- It provides flexibility to the user to use the system.

3)**Setter methods are used to set the value to the instance variables of the class.**
Syntex for setter method
a.compulsory the method name should start with set.
b.it should be public.
c.return type should be void.
d.compulsorily it should have same argument.

Getter methods are used to get the value from the instance variables of the class.
Syntax for getter method
a. compulsory the method name should start with get.
b.it should be public.
c.return type should not be void.
d.compulsorily it should not have any argument.

Example:

```
class Student{

private int age;
private String name;

public void setName(string name){

this.name=name;
}
public void setAge(int age){

this.age=age;
}
public String getName(){

return name;
}
public int getAge(){

return age;
}

}
public class Demo
{
        public static void  main(string[] args){

Student std=new Student();
```

```
std.setName(name: “Rehan”);
std.setAge(age:18);

System.out.println(“Name : ”+ std.getName());
System.out.println(“Age: ”+std.getAge())
    }
}
```

4)this Keyword would always point to current object,and this variable would hold the address the object present in the heap memory.

Example:

```
Student(String name,Integer id, String address){
this.name = name;
this.id = id;
this.address = address;
```

5)

- We can achieve security.
- Enhancement become easy.
- Maintanability and modularisation becomes easy.
- It provides flexibility to the user to use the system.

6) Every data member inside the class should be decleared as private to Achive the Encapsulation.