

1. tight coupling:

When an object creates the object to be used, then it is a tight coupling situation. As the main object creates the object itself, this object can not be changed from outside world easily marked it as tightly coupled objects.

```
examples:
           public class lg {
 public static void main(String args[]) {
   tv a = new tv();
   a.display();
class tv {
  dish b;
 public tv() {
   b = new dish();
 public void display() {
   System.out.println("tv is on");
   b.display();
class B {
 public B(){}
 public void display() {
   System.out.println("dish is active channels are comming");
EXAMPLE:
  class Subject {
  Topic t = new Topic();
  public void startReading()
     t.understand();
class Topic {
  public void understand()
     System.out.println("no doubts");
EXAMPLE:
  class height
   public static void main(String args[])
     height b = \text{new hight}(5.8f);
     System.out.println(b.volume);
```

```
} class age
{
    public float height;
    age(float h)
    {
       this.height = h;
    }
} LOOSE COUPLE;
```

When an object gets the object to be used from the outside, then it is a loose coupling situation. As the main object is merely using the object, this object can be changed from the outside world easily marked it as loosely coupled objects.

```
jects.
EXAMPLES
  public interface Topic
  void understand();
class Topic1 implements Topic {
public void understand()
     System.out.println("Got it");
} class Topic2 implements Topic {
public void understand()
     System.out.println("understand");
} public class Subject {
public static void main(String[] args)
     Topic t = new Topic1();
     t.understand();
EXAMPLE
class Volume
   public static void main(String args[])
     Box b = \text{new Box}(5,5,5);
     System.out.println(b.getVolume());
final class Box
   private int volume;
   Box(int length, int width, int height)
     this.volume = length * width * height;
   public int getVolume()
```

```
return volume;
EXAMPLE
public class App {
Job job;
public App(Job job) {
 this.job = job;
}
public void display() {
job.display();
public static void main(String args[]) {
 Engineer engineer = new Engineer();
 App app = new App(engineer);
 app.display();
CONTROL STATEMENTS:
1: IF ESE STATEMENTS
 EXAMPLES:
       class IfStatement {
 public static void main(String[] args) {
  int number = 10;
  // checks if number is greater than 0
  if (number > 0) {
   System.out.println("The number is positive.");
else
  System.out.println("Statement outside if block");
2: DO WHILE loops
EXAMPLES:
 class doWhileStatement {
 public static void main(String[] args) {
     int i = 0;
 System.out.println(i);
 i++;
while (i < 5);
```

```
3: WHILE loops:
EXAMPLES:
class whileStatement {
 public static void main(String[] args) {
 int i = 0;
while (i < 5) {
 System.out.println(i);
 i++;
3 : FOR LOOPS:
 EXAMPLES:
class forStatement {
 public static void main(String[] args) {
      for (int i = 0; i < 5; i++) {
 System.out.println(i);
4: SWITCH STATEMENTS
 EXAMPLES:
class switchStatement {
 public static void main(String[] args) {
int day = 4;
switch (day) {
 case 1:
  System.out.println("Monday");
  break;
 case 2:
  System.out.println("Tuesday");
  break;
 case 3:
  System.out.println("Wednesday");
  break;
 case 4:
  System.out.println("Thursday");
  break;
 case 5:
  System.out.println("Friday");
  break;
 case 6:
  System.out.println("Saturday");
  break;
 case 7:
  System.out.println("Sunday");
  break;
DATA TYPES:
class Main {
 public static void main(String[] args) {
byte b = 31;
short sh=331;
long l=3131313L;
```

```
int myNum = 5;
float myFloatNum = 5.99f;
double number = -42.3;
char myLetter = 'D';
boolean myBool = true;
String myText = "Hello";
System.out.println(b);
System.out.println(sh);
System.out.println(l);
System.out.println(mynum);
System.out.println(myFloatNum);
System.out.println(myBool);
System.out.println(myText);
CONSTRUCTORS:
  EXAMPLES
    public class Student
  String name;
  String course;
  int age;
  public Student(String name, String course,int age)
    this.name = name;
    this.course = course;
    this.age = age;
  public String getName()
    return name;
  public static void main(String[] args)
    Student s1 = new Student("MAHESH", "CSE", 23);
    System.out.println(s1.getName());
ZERO PARAMETER CONSTRUCTOR AND PARAMETERISED CONSTRUCTOR:
 EXAMPLES:
  import java.io.*;
class Student
  int num;
  int id;
  String name;
  student()
  {
    System.out.println("Constructor called");
```