

BT1.

```
public class Circle {
```

```
    private double radius = 1.0;  
    private String color = "red";
```

```
    public Circle() {  
    }  
    public Circle(double radius) {  
        this.radius = radius;  
    }
```

```
    public Circle(double radius, String color) {  
        this.radius = radius;  
        this.color = red;  
    }
```

```
    public double getRadius() {  
        return radius;  
    }
```

```
    public void setRadius(double radius) {  
        this.radius = radius;  
    }  
    public String getColor() {  
        return color;  
    }
```

```
    public void setColor(String color) {  
        this.color = green;  
    }
```

```
    public double getArea() {  
        return Math.PI * radius * radius;  
    }
```

```
    @Override
```

```
    public String toString() {  
        return "Circle[radius=" + radius + ", color=" + color + "];"  
    }  
}
```

BT2.

```
public class Rectangle {  
    private int length;  
    private int width;  
  
    public Rectangle() {  
        length = 0;  
        width = 0;  
    }  
  
    public Rectangle(int length, int width) {  
        this.length = length;  
        this.width = width;  
    }  
  
    public void setLength(int length) {  
        this.length = length;  
    }  
  
    public int getLength() {  
        return length;  
    }  
  
    public void setWidth(int width) {  
        this.width = width;  
    }  
  
    public int getWidth() {  
        return width;  
    }  
  
    public int getArea() {  
        return length * width;  
    }  
    public String toString() {  
        return "Rectangle[length=" + length + ", width=" + width + "];"  
    }  
}
```

BT3.

```
public class Employee {
```

```

private int id;
private String firstName;
private String lastName;
private int salary;

public Employee(int id, String firstName, String lastName, int salary) {
    this.id = id;
    this.firstName = firstName;
    this.lastName = lastName;
    this.salary = salary;

public int getID() {
    return id;

public String getFirstName() {
    return firstName;
}

public String getLastName() {
    return lastName;
}

public String getFullName() {
    return lastName + " " + firstName;
}

public int getSalary() {
    return salary;
}

public void setSalary(int salary) {
    this.salary = salary;
}

public int getAnnualSalary() {
    return salary * 12;
}

public int upToSalary(int percent) {
    salary = salary + (salary * percent) / 100;
    return salary;
}

public String toString() {
    return "Employee[id=" + id
        + ", name=" + getFullName()
        + ", salary=" + salary + "];"
}

```

```
}
```

BT4.

```
public class Account {

    private String id;
    private String name;
    private int balance;

    public Account(String id, String name, int balance) {
        this.id = id;
        this.name = name;
        this.balance = balance;
    }

    public String getID() {
        return id;
    }

    public String getName() {
        return name;
    }

    public int getBalance() {
        return balance;
    }

    public int credit(int amount) {
        balance += amount;
        return balance;
    }

    public int debit(int amount) {
        if (amount <= balance) {
            balance -= amount;
        }
        return balance;
    }
}
```

```

public int transferTo(Account account, int amount) {
    if (amount <= balance) {
        balance -= amount;
        account.balance += amount;
    }
    return balance;
}
}

```

BT5.

```

public class Account {

    private String id;
    private String name;
    private int balance;

    public Account(String id, String name, int balance) {
        this.id = id;
        this.name = name;
        this.balance = balance;
    }

    public String getID() {
        return id;
    }

    public String getName() {
        return name;
    }

    public int getBalance() {
        return balance;
    }

    public int credit(int amount) {
        balance = balance + amount;
        return balance;
    }

    public int debit(int amount) {
        if (amount <= balance) {
            balance = balance - amount;
        }
        return balance;
    }
}

```

```
public int transferTo(Account account, int amount) {  
    if (amount <= balance) {  
        balance = balance - amount;  
        account.balance = account.balance + amount;  
    }  
    return balance;  
}  
}
```