

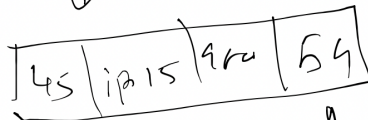
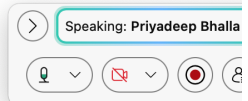
```

public class Product {
    private int id;
    private String name;
    private double price;

    public Product() {
    }

    public Product(int id, String name, double price) {
        this.id = id;
        this.name = name;
        this.price = price;
    }
}

```



Super

```

public class Mobile extends Product {
    private String connectivity;

    public Mobile() {
    }

    public Mobile(int id, String name, double price, String connectivity) {
        super(id, name, price); // call - chain to Product constructor
        this.connectivity = connectivity;
    }
}

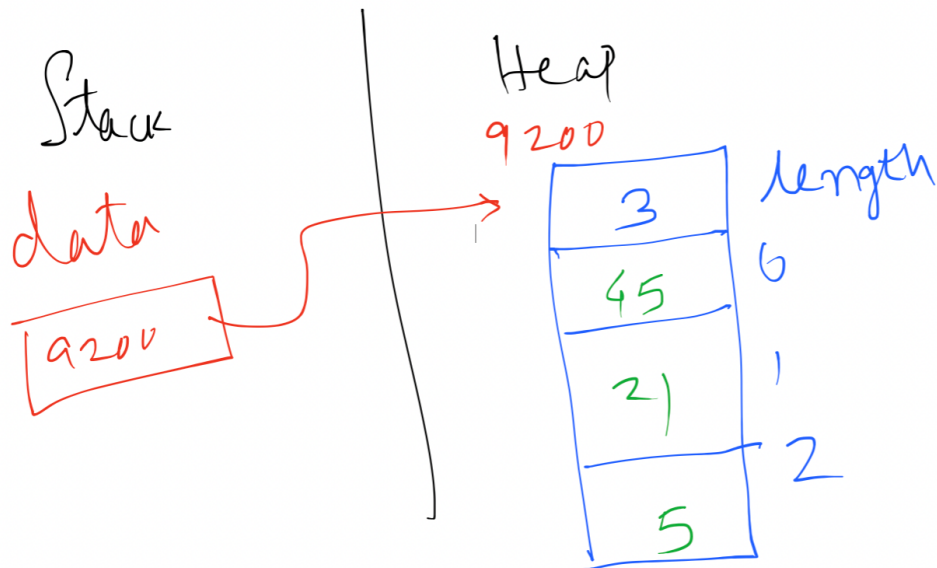
```

new Mobile(45, "iPhone 15", 98000.00, "5G");

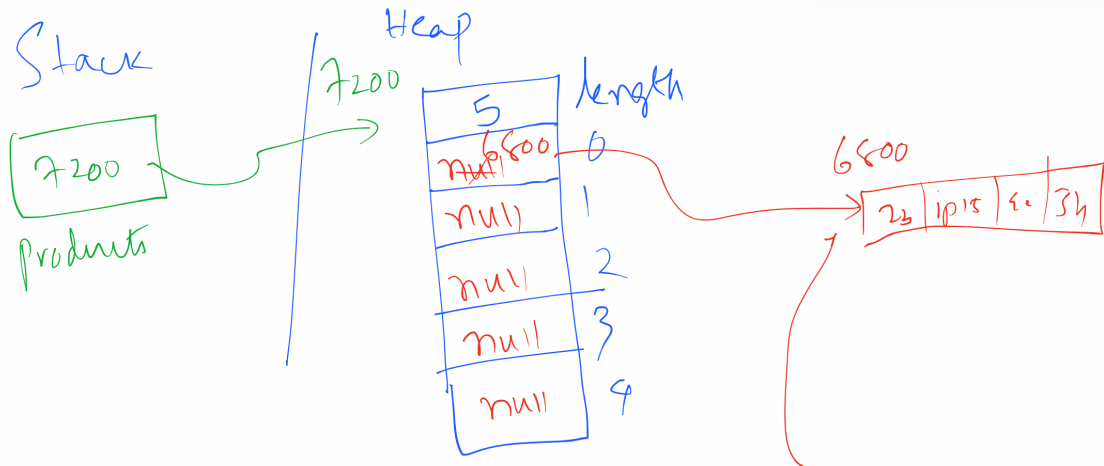
```

int[] data = new int[3];
data[0] = 45;
data[1] = 21;
data[2] = 5;

```



```
Product[] products = new Product[5];
```



```
products[0] = new Mobile(id: 23, name: "iPhone 15", price: 98000.00, connectivity: "5G");
```

```
Method[] methods = p.getClass().getMethods();
```

```
if(m.getName().startsWith("get")) {
```

```
public int getId() {
    return id;
}

public void setId(int id) {
    this.id = id;
}

public String getName() {
    return name;
}

public void setName(String name) {
    this.name = name;
}

public double getPrice() {
    return price;
}

public void setPrice(double price) {
    this.price = price;
}

// default implementation
public boolean isExpensive() {
    return false;
}

public String getConnectivity() {
    return connectivity;
}

public void setConnectivity(String connectivity) {
    this.connectivity = connectivity;
}
```

```
System.out.println(m.getName()
    .substring(beginIndex: 3).toUpperCase());
```

```
Method[] methods = p.getClass().getMethods();
```

```
for(Method m : methods) {  
    if(m.getName().startsWith("get")) {
```

```
Object ret = m.invoke(p);
```

getId

this

```
public int getId() {  
    return id;  
}  
  
public void setId(int id) {  
    this.id = id;  
}  
  
public String getName() {  
    return name;  
}  
  
public void setName(String name) {  
    this.name = name;  
}  
  
public double getPrice() {  
    return price;  
}  
  
public void setPrice(double price) {  
    this.price = price;  
}  
  
// default implementation  
public boolean isExpensive() {  
    return false;  
}  
  
public String getConnectivity() {  
    return connectivity;  
}  
  
public void setConnectivity(String connectivity) {  
    this.connectivity = connectivity;  
}
```

P.getId()

UI

UI code:

click on add button

employeeDao.addEmployee(e);

employeeDao.getEmployee(34);

←
B L R
Mock UI

Employee

```
interface EmployeeDao {  
    void addEmployee(Employee e);  
    Employee getEmployee(int id);  
}
```

CORE
Module
↳ Repository

Backend

```
public class EmployeeDaoImpl implements EmployeeDao {  
    public void addEmployee(Employee e) { insert }  
    public Employee getEmployee(int id) { select }  
}
```

→ US

Mock Impl

UI

UI code:

click on add button

```
employeeDao.addEmployee(e);
```

```
employeeDao.getEmployee(34);
```

Zero
changes

Employee

```
interface EmployeeDao {  
    void addEmployee(Employee e);  
    Employee getEmployee(int id);  
}
```

Backend

```
public class EmployeeDaoDbImpl implements EmployeeDao {  
    public void addEmployee(Employee e) { insert }  
    public Employee getEmployee(int id) { select }  
}
```

MongoDB

CORE
Module

↳ Repository

