

Program Coding:

```
package assignment1;

/**
 *
 * @author ABDUL RAFEH
 */
abstract class Menu {

    String name = "ABDUL RAFEH";
    String isOpen;

    public abstract void select();

    public abstract void move();

    public abstract void rotate();

    public void open() {
        System.out.println("This open comes from class Menu with assist of abstraction");
    }

}

class View extends Menu {

    String no_of_obj;
    String Selected;

    public void select() {
        System.out.println("This select comes from class Menu with assist of abstraction");
    }

    public void move() {
        System.out.println("This move comes from class Menu with assist of abstraction");
    }

    public void rotate() {
        System.out.println("This rotate comes from class Menu with assist of abstraction");
    }

    public void add() {
        System.out.println("This add comes from class View");
    }

    public void remove() {
        System.out.println("This remove comes from class View");
    }

}
```

}

```
public void group() {  
    System.out.println("This group comes from class View");  
}
```

```
public void show() {  
    System.out.println("This show comes from class View");  
}
```

```
public void select(String s) {  
    System.out.println(s);  
}
```

```
public void move(String s) {  
    System.out.println(s);  
}
```

```
public void rotate(String s) {  
    System.out.println(s);  
}
```

}

```
class Shape extends Menu {
```

```
    String color = "Red";  
    int vertices;
```

```
public void select() {  
    System.out.println("This select comes from class Shape with assist of abstraction");  
}
```

```
public void move() {  
    System.out.println("This move comes from class Shape with assist of abstraction");  
}
```

```
public void rotate() {  
    System.out.println("This rotate comes from class Shape with assist of abstraction");  
}
```

```
public void draw() {  
    System.out.println("This draw comes from Shape Class");  
};  
}
```

```
abstract class Groups {  
    int no_of_obj;
```

```
    public abstract void draw();
```

```
}
```

```
class G1 extends Groups {  
    public void draw() {  
        System.out.println("This draw comes from Class Group");  
    }  
}
```

```
class Triangle extends Groups {  
    int angle;  
  
    public void draw() {  
        System.out.println("This draw comes from Class Triangle with assist of abstraction");  
    }  
}
```

```
class Circle extends Groups {  
    int radius;  
  
    public void draw() {  
        System.out.println("This draw comes from Class Circle with assist of abstraction");  
    }  
}
```

```
class Line extends Groups {  
    int length;  
  
    public void draw() {  
        System.out.println("This draw comes from Class Line with assist of abstraction");  
    }  
}
```

```
class Assignment1 {  
    public static void main(String[] args) {  
        View arv = new View();  
        arv.select();  
        arv.move();  
        arv.rotate();  
        arv.open();  
        arv.add();  
        arv.remove();  
        arv.group();  
        arv.show();  
        arv.select("This Select comes from Class View only");  
        arv.move("This Move comes from Class View only");  
        arv.rotate("This Rotate comes from Class View only");  
  
        Shape ars = new Shape();  
        ars.draw();  
        ars.select();  
    }  
}
```

```
ars.move();
ars.rotate();
```

```
G1 arg = new G1();
arg.draw();
```

```
Triangle art = new Triangle();
art.draw();
```

```
Circle arc = new Circle();
arc.draw();
```

```
Line arl = new Line();
arl.draw();
```

```
}
}
```

Output:

Assignment1 - NetBeans IDE 8.2

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Projects Files Services

1 OOP Class

Source Packages

Test Packages

Libraries

Test Libraries

Assignment1

Source Packages

assignment1

Assignment1.java

Test Packages

Libraries

Test Libraries

Quiz1

Assignment1.java

```
1 package assignment1;
2
3
4 /**
5  *
6  * @author ABDUL RAFEH
7  */
8 abstract class Menu {
9
10     String name = "ABDUL RAFEH";
```

Output - Assignment1 (run)

Run:

This select comes from class Menu with assist of abstraction

This move comes from class Menu with assist of abstraction

This rotate comes from class Menu with assist of abstraction

This open comes from class Menu with assist of abstraction

This add comes from class View

This remove comes from class View

This group comes from class View

This show comes from class View

This Select comes from Class View only

This Move comes from Class View only

This Rotate comes from Class View only

This draw comes from Shape Class

This select comes from class Shape with assist of abstraction

This move comes from class Shape with assist of abstraction

This rotate comes from class Shape with assist of abstraction

This draw comes from Class Group

This draw comes from Class Triangle with assist of abstraction

This draw comes from Class Circle with assist of abstraction

This draw comes from Class Line with assist of abstraction

BUILD SUCCESSFUL (total time: 0 seconds)

ABDUL RAFEH 104_2C

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