

### Question 1.1

/\* Saket Bakshi, Period 6

Question 1.1 of Ch 3 project. This program creates an empty class for a door class.

```
*/  
public class Door  
{  
  
}
```

### Question 1.2

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Question 1.2 of Ch 3 project. This program creates instance variables for a door class.

```
*/  
public class DoorV2  
{  
    private String name;  
    private String state;  
}
```

### Question 1.3

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Question 1.3 of Ch 3 project. This program creates methods for a door class.

```
*/  
public class DoorV3  
{  
    private String name;  
    private String state;  
  
    public void close()  
    {  
        state = "close";  
    }  
  
    public void open()  
    {  
        state = "open";  
    }  
}
```

#### Question 1.4

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Question 1.4 of Ch 3 project. This program creates constructors for a door class.

\*/

```
public class DoorV4
{
    private String name;
    private String state;

    public DoorV3(String doorName, String doorState)
    {
        this.name = doorName;
        this.state = doorState;
    }

    public void close()
    {
        state = "close";
    }

    public void open()
    {
        state = "open";
    }
}
```

#### Question 1.5

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Question 1.5 of Ch 3 project. This program creates an accessor method for a door class.

\*/

```
public class DoorV5
{
    private String name;
    private String state;

    public DoorV3(String doorName, String doorState)
    {
        this.name = doorName;
        this.state = doorState;
    }
}
```

```

    public void close()
    {
        state = "close";
    }

    public void open()
    {
        state = "open";
    }

    public String getName()
    {
        return name;
    }

    public String getState()
    {
        return state;
    }
}

```

#### Question 1.6

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Question 1.6 of Ch 3 project. This program creates mutator methods for a door class.

\*/

```

public class DoorV6
{
    private String name;
    private String state;

    public DoorV3(String doorName, String doorState)
    {
        this.name = doorName;
        this.state = doorState;
    }

    public void close()
    {
        state = "close";
    }

    public void open()

```

```

    {
        state = "open";
    }

    public String getName()
    {
        return name;
    }

    public String getState()
    {
        return state;
    }

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

    public void setState(String newState)
    {
        this.state = newState;
    }
}

```

#### Question 1.7

```

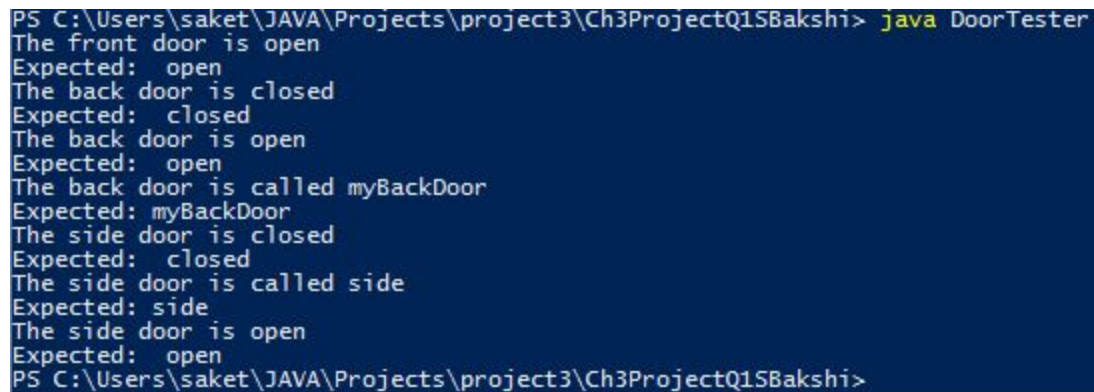
/**
    A class to test the Door class.
 */
public class DoorTester
{
    public static void main(String[] args)
    {
        DoorV6 frontDoor = new DoorV6("Front", "open");
        System.out.println("The front door is " + frontDoor.getState());
        System.out.println("Expected: open");
        DoorV6 backDoor = new DoorV6("Back", "closed");
        System.out.println("The back door is " + backDoor.getState());
        System.out.println("Expected: closed");
        backDoor.setState("open");
        System.out.println("The back door is " + backDoor.getState());
        System.out.println("Expected: open");
    }
}

```

```

        backDoor.setName("myBackDoor");
        System.out.println("The back door is called " + backDoor.getName());
        System.out.println("Expected: myBackDoor");
        DoorV6 sideDoor = new DoorV6("side", "closed");
        System.out.println("The side door is " + sideDoor.getState());
        System.out.println("Expected: closed");
        System.out.println("The side door is called " + sideDoor.getName());
        System.out.println("Expected: side");
        sideDoor.setState("open");
        System.out.println("The side door is " + sideDoor.getState());
        System.out.println("Expected: open");
    }
}

```



```

PS C:\Users\saket\JAVA\Projects\project3\Ch3ProjectQ1SBakshi> java DoorTester
The front door is open
Expected: open
The back door is closed
Expected: closed
The back door is open
Expected: open
The back door is called myBackDoor
Expected: myBackDoor
The side door is closed
Expected: closed
The side door is called side
Expected: side
The side door is open
Expected: open
PS C:\Users\saket\JAVA\Projects\project3\Ch3ProjectQ1SBakshi>

```

### Exercise 1.8

/\* Saket Bakshi, Period 6

Question 1.8 of Ch 3 project. This program explains what kind of variables state and newState are

\*/

/\*

**state is an instance variable of the DoorV6 class. Each DoorV6 object has a state variable.**

**newState is a parameter variable of the mutator setState() that is created when a user uses setState()**

**and deleted when the method is finished.**

\*/

public class DoorV7

{

private String name;

private String state;

public DoorV7(String doorName, String doorState)

```

    {
        this.name = doorName;
        this.state = doorState;
    }

    public void close()
    {
        state = "close";
    }

    public void open()
    {
        state = "open";
    }

    public String getName()
    {
        return name;
    }

    public String getState()
    {
        return state;
    }

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

    public void setState(String newState)
    {
        this.state = newState;
    }
}

```

### Exercise 1.9

/\*

The explicit parameter is the String “open” and the implicit parameter is the object, backDoor.

\*/