

```
import java.util.ArrayList;
```

```
import java.util.List;
```

```
interface Subject {
```

```
    void attatchObserver(Observer observer);
```

```
    void detatchObserver(Observer observer);
```

```
    void notifyObservers();
```

```
}
```

```
interface Observer {
```

```
    void update(String match);
```

```
}
```

```
class LiveMatch implements Subject {
```

```
    private List<Observer> observers;
```

```
    private String match;
```

```
    public LiveMatch() {
```

```
        observers = new ArrayList<>();
```

```
    }
```

```
    @Override
```

```
    public void attatchObserver(Observer observer) {
```

```
        observers.add(observer);
```

```
    }
```

```
    @Override
```

```
    public void detatchObserver(Observer observer) {
```

```
        observers.remove(observer);
```

```
    }
```

```

@Override

public void notifyObservers() {
    for (Observer observer : observers) {
        observer.update(match);
    }
}

public void setMatch(String match) {
    this.match = match;
    notifyObservers();
}
}

class CityObserver implements Observer {
    private String cityName;

    public CityObserver(String cityName) {
        this.cityName = cityName;
    }

    @Override
    public void update(String match) {
        System.out.println("Match update for " + cityName + ": " + match);
    }
}

public class Main {
    public static void main(String[] args) {
        LiveMatch liveMatch = new LiveMatch();
    }
}

```

```
Observer city1 = new CityObserver("City A");
```

```
Observer city2 = new CityObserver("City B");
```

```
Observer city3 = new CityObserver("City C");
```

```
liveMatch.registerObserver(city1);
```

```
liveMatch.registerObserver(city2);
```

```
liveMatch.registerObserver(city3);
```

```
liveMatch.setMatch("Volleyball match live now!");
```

```
liveMatch.setMatch("Cricket match in progress!");
```

```
liveMatch.setMatch("Football match about to start!");
```

```
liveMatch.removeObserver(city3);
```

```
liveMatch.setMatch("Another cricket match in progress!");
```

```
}
```

```
}
```