Here are two procedures - taken from a previous lesson.

```java
static void joe() {
    out.print('W');
}

public static void main() {
    joe();
    out.print('S');
    joe();
}
```

They have also been copied onto the next slide.
public static void main() {
    joe();
    out.print('S');
    joe();
}
static void joe() {
    out.println('W');
}
joe();

public static void main() {
    joe();
    out.println('S');
joe();
}

Procedure Activation Chart - TIME progresses to right

setup
main
joe

Entry into joe

CPU starts running "joe"

Calls Progress downwards

Console

First Call joe

Tuesday, March 20, 2012
12:00 PM
Run joe step 1

Tuesday, March 20, 2012
12:00 PM

```java
public static void main()
{
    joe();
    out.print('W');
    joe();
}
```

Procedure Activation Chart - TIME progresses to right

setup

main

joe

Console

W

Joe writes out the letter W
```java
public static void main() {
    joe();
    out.print('S');
    joe();
}
```
static void joe() {
    out.print('W');
}

public static void main() {
    joe();
    out.print('S');
    joe();
}

Procedure Activation Chart - TIME progresses to right

setup main joe

main writes one letter S

main continues

Tuesday, March 20, 2012
12:00 PM
```java
public static void main() {
    joe();
    out.print('S');
    joe();
}
```

Procedure Activation Chart - TIME progresses to right

- **setup**
- **main**
- **joe**

- **Console**

WS

- **Entry into joe**
- **CPU starts running "joe"**

- **Calls Progress downwards**

**Second Call joe**

Tuesday, March 20, 2012
12:00 PM
public static void main()
{
    joe();
    out.print('S');
    joe();
}

Joe writes out the letter W
public static void main() {
    joe();
    out.print('S');
    joe();
}

joe returns to its caller "main"

Procedure Activation Chart - TIME progresses to right

setup
main
joe

Console

WSW
```java
public static void main()
{
    joe();
    out.print('S');
    joe();
}
```

Procedure Activation Chart - TIME progresses to right

setup

main   S

joe    W

---------->

main returns to setup

Program is DONE

Tuesday, March 20, 2012
12:00 PM

WSW
Number Chart Events
Thursday, March 22, 2012
9:36 AM
First(and only) activation of main: 1-6
joe first Activation
Thursday, March 22, 2012
9:36 AM

First activation of joe: 2-3
joe second Activation

Second activation of joe: 4-5
setup
main
joe

Console

WSW

main: 1-6
joe: 2-3,4-5