### Exercise (Spring Container)

#### Q1:

#### Output:

hey from message1

#### **Explanation:**

- 1. Method getMessage1() will run and print the sentence
- 2. The return of getMessage1() "1" will be in the container.

#### Q2:

## **Output:**

hey from message1

hey from message2

### **Explanation:**

- 1. Method getMessage1() will run because it is independent.
- 2. The return of getMessage1() "1" will be in the container.
- 3. Method getMessage2() will run because Qualifier("1") exists in the container.

#### Q3:

## Output(1):

hey from message1

hey from message3

hey from message2

## **Explanation:**

- 1. Method getMessage1() will run because it is independent.
- 2. the return of getMessage1() "1" will be in the container.
- 3. Method getMessage3() will run because it is independent.
- 4. Method getMessage2() will run because Qualifier("3") exists in the container.
- 5. the return of getMessage2() data will be in the container.

# Output(2):

hey from message3

hey from message1

hey from message2

### **Explanation:**

- 1. Method getMessage3() will run because it is independent.
- 2. The return of getMessage3() "3" will be in the container.
- 3. Method getMessage1() will run because it is independent.
- 4. The return of getMessage1() "1" will be in the container.
- 5. Method getMessage2() will run because Qualifier("3") exists in the container.

## Output(3):

hey from message3

hey from message2

hey from message1

## **Explanation:**

- 1. Method getMessage3() will run because it is independent.
- 2. The return of getMessage3() "3" will be in the container.
- 3. Method getMessage2() will run because Qualifier("3") exists in the container.
- 4. Method getMessage1() will run because it is independent.
- 5. The return of getMessage1() "1" will be in the container.

#### Q4:

# Output(1):

hey from message1

hey from message3

hey from message2

hey from Main controller

# Explanation:

- 1. Method getMessage1() will run because it is independent.
- 2. the return of getMessage1() "1" will be in the container.
- 3. Method getMessage3() will run because it is independent.
- 4. the return of getMessage3() "3" will be in the container.

- 5. Method getMessage2() will run because Qualifier("3") exists in the container.
- 6. the return of getMessage2() data will be in the container.
- 7. Method MainController() will run because Qualifier("1") exists in the container.

## Output(2):

hey from message3

hey from message1

hey from message2

hey from Main controller

## **Explanation:**

- 1. Method getMessage3() will run because it is independent.
- 2. The return of getMessage3() "3" will be in the container.
- 3. Method getMessage1() will run because it is independent.
- 4. The return of getMessage1() "1" will be in the container.
- 5. Method getMessage2() will run because Qualifier("3") exists in the container.
- 6. Method MainController() will run because Qualifier("1") exists in the container.

# Output(3):

hey from message3

hey from message2

hey from message1

hey from Main controller

# **Explanation:**

- 1. Method getMessage3() will run because it is independent.
- 2. The return of getMessage3() "3" will be in the container.
- 3. Method getMessage2() will run because Qualifier("3") exists in the container.
- 4. Method getMessage1() will run because it is independent.
- 5. The return of getMessage1() "1" will be in the container.
- 6. Method MainController() will run because Qualifier("1") exists in the container.

# Output(4):

hey from message1

hey from Main controller

hey from message3

hey from message2

## **Explanation:**

- 1. Method getMessage1() will run because it is independent.
- 2. The return of getMessage1() "1" will be in the container.
- 3. Method MainController() will run because Qualifier("1") exists in the container.
- 4. Method getMessage3() will run because it is independent.
- 5. The return of getMessage3() "3" will be in the container.
- 6. Method getMessage2() will run because Qualifier("3") exists in the container.

### Output(5):

hey from message1

hey from message3

hey from Main controller

hey from message2

### **Explanation:**

- 1. Method getMessage1() will run because it is independent.
- 2. The return of getMessage1() "1" will be in the container.
- 3. Method getMessage3() will run because it is independent.
- 4. The return of getMessage3() "3" will be in the container.
- 5. Method MainController() will run because Qualifier("1") exists in the container.
- 6. Method getMessage2() will run because Qualifier("3") exists in the container.

#### Q5:

# Output(1):

hey from message3

hey from message2

hey from Main controller

hey from message1

# Explanation:

1. Method getMessage3() will run because it is independent.

- 2. The return of getMessage3() "3" will be in the container.
- 3. Method getMessage2() will run because Qualifier("3") exists in the container.
- 4. The return of getMessage2() "2" will be in the container.
- 5. Method MainController() will run because Qualifier("2") exists in the container.
- 6. Method getMessage1() will run because maincontroller exists in the container.
- 7. The return of getMessage1() "1" will be in the container.

## Output(2):

hey from message3

hey from message2

hey from message1

hey from Main controller

### **Explanation:**

- 1. Method getMessage3() will run because it is independent.
- 2. The return of getMessage3() "3" will be in the container.
- 3. Method getMessage2() will run because Qualifier("3") exists in the container.
- 4. The return of getMessage2() "2" will be in the container.
- 5. Main controller initialized before getMessage1() run
- 6. Method getMessage1() will run because the Main controller is available to pass into the parameter (MainController is initialized when we call getMessage1, but it executes before printing "hey from message1").