

CSSE 220 – Object-Oriented Software Development
Rose-Hulman Institute of Technology

Worksheet 15

Name (Print): _____ Section: _____

1. Program execution models

Identify the type of programming represented by each flow.

- Start → Step 1 → Step 2 → Step 3 → End _____
- Start → WAIT → WAIT → WAIT → (something happens) → react _____

2. Event definition. An event is _____ that describes something that happened in the program or its environment.

3. Event types

For each user action below, write the type of event that is generated.

- Clicking a button _____
- Pressing Enter in a text field _____
- Pressing a key on the keyboard _____
- Resizing a window _____

4. Event anatomy

An event object contains three main pieces of information. Fill in the blanks below.

- _____ – the component that generated it
- _____ – what kind of action occurred
- _____ – event details (like coordinates or command text)

5. Lambda action listener

Complete the code so that clicking the button calls the method `increment()`.

```
1 JButton countButton = new JButton("Count");
2
3 countButton.addActionListener( _____ );
```

Why is a lambda appropriate in this case?

6. Named inner action listener

Complete the code so that all three buttons use the same listener.

```
1 private class ButtonListener implements ActionListener {  
2     @Override  
3     public void actionPerformed(ActionEvent e) {  
4         handleClick(e);  
5     }  
6 }
```

```
1 ButtonListener bl = new ButtonListener();  
2 up.addActionListener( _____ );  
3 down.addActionListener( _____ );  
4 reset.addActionListener( _____ );
```

Why is using a class-based listener useful when handling multiple buttons?

7. Final Project Team Checklist

- Team is formed (name): _____
- Team captain is identified (name) _____
- Team has exchanged schedules for meetings outside of class
- A shared Google Doc is created for project milestones (Note: Google doc is preferred over sharepoint word document)

8. Before You Leave

Write one question you still have about today's topic.
