

(From last time) Go over the procedure for creating a component (like a JButton) and allowing it to react to user interaction.

Eg) What code needs to be written to create a button that when pressed changes the color of a drawing canvas to be X, where X could be a specific color, or a random color.

- 1 – Create the JButton object (“new JButton”)
- 2 – Visual Aesthetics – include putting it on the container/frame
- 3 – Create a listener for the button and call the appropriate method to attach the listener to the button
- 4 – Write code in the listener so that it performs the appropriate action

Write the code to declare a variable whose type is a collection.

```
java.util.Collection<TypeOfElementStoredInCollection> identifier;
```

Write the code that declares a variable whose type is a collection of bats and whose name is sackOfBats.

```
java.util.Collection<Bat> sackOfBats;
```

~~Write the code to add something to a collection.~~

Write the code for a for-each loop to do something with a collection of objects.

Identify the parts of a for-each loop.

```
for(TypeOfElementInCollection identifier: nameOfCollection) {
```

```
//code that is repeated for each element of the collection
//loop body
}

for(Bat ozzy: sackOfBats) {
    ozzy.biteOffHead();
}
```

Write a for-each loop that iterates over a collection named `stackOfExams` which contains `Exam` objects. For each element in that collection, call the `gradePaper()` method on it.

```
for(Exam studentExam: stackOfExams) {
    studentExam.gradePaper();
}
```

Make sure you understand the answers to the questions from Exam 3 – some of those questions may come back on this exam.