SE1021 Final Review

You ***will*** be allowed a note-sheet, prepare by yourself individually on the final. See the email for details.

Circle the keywords related to inheritance and polymorphism. ***Box*** the keywords related to exceptions.

`abstract`	`implements`	`int`
`for`	`protected`	`try`
`new`	`throw`	`final`
`switch`	`else`	`interface`
`default`	`import`	`static`
`package`	`public`	`void`
`boolean`	`throws`	`class`
`do`	`case`	`finally`
`if`	`instanceof`	`long`
`private`	`return`	`float`
`this`	`catch`	`super`
`double`	`extends`	`while`

Strike through the keywords that are easy. ***Group*** the keywords into similar pairs. ***Describe*** the differences between the keywords that are most similar. ***Describe*** the keywords any keywords that aren't in a pair in your own words. You may find it helpful to ***give examples*** – especially for exceptions – see **Problem 5** on the next page.

Functional Programming

1. Write a class that implements this interface. The method should return true if the word starts with a capital F.

```
public interface SimplePredicate {

    boolean matches(String word1);

}
```

2. The method `Puppy find(SimplePredicate)` of the `Pound` class finds a puppy whose name "matches" with the given predicate. Call this method on the `pound` object, passing a lambda expression that returns `true` if the puppy's name starts with a capital `F`.

3. The List<String> puppies contains the names of several puppies. Use the `forEach` method to find all the puppies whose names end with the letter `y`.

4. Describe how Java FX determines which code should be called when
    a. You are using FXML

    b. You are using pure code to layout the GUI

5. On another sheet of paper, write some code to open a file , read one line from the file, and ensure the file is closed. Don't use the try-with-resources syntax for the best challenge.

6. If you have extra time, pull out and review your half-exams from this quarter.