- mid 2 on Wed.
- last ext. 2 days to Thur.
- lab ext. 1 day

Private access level:

A field or method that is declared private is visible only within its class.

Data hiding:
The user of a new data type can perform only those operations intended by the designer.
Think of new data type as a black box:

![Diagram of a black box with controls]

Control Panel is interface.

After making fields private, add certain getter and setter methods.
Define an access function returns information about the state of an object.

Define a manipulation procedure changes the state of an object.

Define a class with no manipulation procedures is said to be immutable.
In Java, there are wrapper classes for the primitive types:

- `int` is `Integer`
- `long` is `Long`
- `short` is `Short`
- `byte` is `Byte`
- `char` is `Character`
- `float` is `Float`
- `double` is `Double`
- `boolean` is `Boolean`
Ex.

```java
Integer A = new Integer(6);
```

Shortcut:

```java
Integer A = 6;
```

Another way:

```java
Integer A = new Integer("6");
```
The `compareTo()` method:

\[ A \text{.compareTo}(B) < 0 \quad \text{if} \quad A < B \]
\[ A \text{.compareTo}(B) = 0 \quad \text{if} \quad A = B \]
\[ A \text{.compareTo}(B) > 0 \quad \text{if} \quad A > B \]