

Passport Program
University of Maryland
College Park
Advanced Level

Importing Lecture Examples

- To import the examples
 - Download the zip file from the class web page
 - Unzip the file; you will see a folder
 - Use the Eclipse “Import→File System” option to import the folder into a new Eclipse project
- Make sure you understand this process as you will need it for projects.

Debugger

- Let's take a look at the Java Debugger
- How to learn the debugger?
 - Start with a program you are familiar with
- Basic Operations
 - Breakpoint
 - Stepping through
 - Variable examination
 - Call stack examination

Testing

- How do test your code?
- First use simple data set
- Test as you develop each class
- Use a testing framework (e.g., JUnit Tests)
- Let's overview JUnit testing and how you should use it

Javadoc

- Three kind of comments

```
// First type
```

```
/* Second type
```

```
*/
```

```
/** Notice we two *
```

```
*/
```

- Javadoc allow us to generate html file representing your code's documentation
- Let's define a couple of comments and then generate the javadoc

Interface

- An interface has two purposes:
 - To force the existence of a set of methods by a class
 - To create an “IS-A” relationship
- An interface allow us to specify the methods a class must defined.
- An interface definition is similar to a class definition.
- You cannot create “interface” objects.
- You can have constants (but not variables)
- You can define interface variables.
- **Example: Student.java** (student package)

Model View Controller (MVC)

- Paradigm used for GUI design
- It defines three components
 - Model – Data representation
 - View – Enables visualization/interaction with the data
 - Controller – Makes the interaction between the other two components possible
- It a nutshell model says that we want to keep components of our system organized in three groups for ease of design and implementation
- Can you identify the Model, View and Controller in a BlackJack game?
- What examples of systems using MVC have you seen?