Using Library Classes

Read Chapter 5
The Java class library is a valuable resource

- Thousands of classes
- Tens of thousands of methods
- Many useful classes that make life much easier
- A competent Java programmer must be able to work with the libraries
- Virtually no useful Java programs are written without using libraries written by others
Learn to work with the library

You should:

- Know some important classes by name
- Know how to find out about other classes

Remember:

- We only need to know the interface, not the implementation
Learn to read class documentation

- Javadoc comments are used to generate class documentation in HTML format
- This is the standard way to document libraries
- Readable in a web browser
- Class API: Application Programmers’ Interface
- Interface description for all library classes
A class interface describes publicly visible features

- Class documentation focuses on the **interface** of the class—its publicly accessible features

- Documentation includes
  - The class name
  - A general description of the class
  - A list of constructors and methods
  - Signatures (parameter and return value info) for constructors and methods
  - A description of the purpose of each constructor and method
The class implementation is private

- The documentation does not include:
  - Private fields (most fields are private)
  - Private methods
  - The bodies (source code) for each method
- These are part of the class implementation
- Only the author of the class needs this information
Import library classes to use them

- Classes from the library must be imported using an `import` statement (except classes from `java.lang`).

- They can then be used like classes from the current project.
Packages organize library classes

- Classes are organised in packages
- Single classes may be imported:
  ```java
  import java.util.ArrayList;
  ```
- Whole packages can be imported:
  ```java
  import java.util.*;
  ```