-ER

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Lecture #5 out of 8
90 minutes

Examples and Alternatives

Read and Watch

“When you need a manager, it’s often a sign that the managed are just plain old data structures and that the manager is the smart procedure doing the real work”

— Carlo Pescio
Your Coding Conventions Are Hurting You, 2011

Chapter #1:

Examples and Alternatives

Parser

```java
class Parser {
  static int parseInt(String t) {
    // Parse String into Integer
  }
  static float parseFloat(String t) {
    // Parse String into Float
  }
  // And many more methods...
}

int x = Parser.parseInt("42");
```

```java
class StringAsInt implements Number {
  private final String txt;
  StringAsInt(String t) { this.txt = t; }
  @Override int intValue() {
    // Parse String into Integer
    // and return the value
  }
}

Number n = new StringAsInt("42");
int x = n.intValue();
```

Reader

```
class Reader {
  static char readChar(InputStream i) {
    // Read the next char from the
    // stream and return it, or NULL
    // if the stream is at the EOF
  }
}

InputStream i = new FileInputStream(..);
char c = Reader.readChar(i);
```

```
class CharsInStream {
  private final InputStream is;
  CharsInStream(InputStream i)
    this.is = i;
  char next() {
    // Read the next char from the
    // stream and throw exception
    // if !exists()
  bool exists() {
    // Return TRUE if not EOF

InputStream i = new FileInputStream(..);
CharsInStream chars = new
 ↪  CharsInStream(i);
char c = chars.next();
```

Examples and Alternatives RW

[Parser Reader Controller Manager]

Controller

```
class SimpleController {
  @GET
  @Path("/index")
  HttpResponse index(HttpRequest e) {
    // Build an index page and return
  }
  @POST
  @Path("/update")
  HttpResponse update(HttpRequest e) {
    // Save new user information
    // and return HTTP 303
  }
}
```

```
class IndexPage implements HttpPage
  HttpResponse process(HttpRequest e) {
    // Build an index page and return
  }
class UpdatePage implements HttpPage
  HttpResponse process(HttpRequest e) {
    // Save new user information
    // and return HTTP 303
  }

new AllPages(
  new IndexPage(),
  new UpdatePage()
);
```

Manager

```
class Manager {
   parseInt(String t) {
    // Parse String into Integer
  }
  static float parseFloat(String t) {
    // Parse String into Float
  }
  // And many more methods...
}

int x = Parser.parseInt("42");
```

```
class StringAsInt implements Number {
  private final String txt;
  StringAsInt(String t) { this.txt = t; }
  @Override int intValue() {
    // Parse String into Integer
    // and return the value
  }
}

Number n = new StringAsInt("42");
int x = n.intValue();
```

Chapter #2:

Read and Watch

Don’t Create Objects That End With -ER by me