

Java 5 Notes

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Generic Types

```
ArrayList list = new ArrayList();  
list.add(0, new Integer(42));  
int total = (Integer)list.get(0).intValue();
```

```
ArrayList<Integer> list =  
    new ArrayList<Integer>();  
list.add(0, new Integer(42));  
int total = list.get(0).intValue();
```

Autoboxing and Auto-Unboxing of Primitive Types

```
ArrayList<Integer> list = new  
    ArrayList<Integer>();  
list.add(0, new Integer(42));  
int total = (list.get(0)).intValue();
```

```
ArrayList<Integer> list = new  
    ArrayList<Integer>();  
list.add(0, 42);  
int total = list.get(0);
```

Enhanced for Loop

```
ArrayList<Integer> list = new  
    ArrayList<Integer>();  
for (Iterator i = list.iterator(); i.hasNext();) {  
    Integer value=(Integer) i.next(); }
```

```
ArrayList<Integer> list = new  
    ArrayList<Integer>();  
for (Integer i : list) { ... }
```

Enumerated Types

```
public enum fruits
    { apple, grapes, banana, oranges };
```

Formatted Output

```
System.out.printf("name count%n");

System.out.printf("%s %5d%n",
    user,total);
```

Formatted Input

```
Scanner s= new Scanner(System.in);

String param= s.next();

int value=s.nextInt();

s.close();
```

Java Scanner

- ❑ Import Class
import java.util.Scanner;
- ❑ Instantiate and Read from a file
import java.io.File
Scanner scanner = new Scanner(new File(fileName));
- ❑ Read each line
scanner.useDelimiter(
 System.getProperty("line.separator"));
while (scanner.hasNext()) {
 String tempLine = scanner.next();
}
scanner.close();

Java Scanner

- Parse line into tokens

```
Scanner lineScanner = new
    Scanner(tempLine);
//specify the delimiter: a comma
lineScanner.useDelimiter(",");
//read an integer
int recNum = lineScanner.nextInt();
//read the next token as a string
String evtLogName = lineScanner.next();
```

Varargs

```
void argtest(Object ... args) {
    for (int i=0;i <args.length; i++) {
        ...
    }
}

argtest("test", "data");
```

More...

- Concurrency using semaphores
 - Enhanced diagnostic using StackTrace
 - New rowset implementations in JDBC
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