

Programming for Mobile Computing

EECS 1022

`moodle.yorku.ca`

Drop deadline

July 21

Until this date you can drop the course without getting a grade for it and, hence, it will not affect your gpa.

July 22–31

During this period you can still drop the course but you will receive a W on your transcript. The W will not affect your gpa.

www.registrar.yorku.ca/enrol/dates/su17.htm contains important dates.

Final exam (programming part) will take place on Thursday July 27 during lab time. In particular,

- Lab 01: 20:00-21:15
- Lab 02: 18:30-19:45
- Lab 03: 15:30-16:45

Final exam (programming part)

The exam will cover all the material covered in the course up to and including July 19.

- Access will be provided to the lecture slides and the sample code.
- Access will be provided to the Java Standard Library API and the Android API.
- No access to the Internet will be provided.
- WSC laptops needs to be used. You cannot use your own laptop.
- Tablets cannot be used during the test.

Problem

Print, for example,

```
If I had bought ibm shares on 01/15/68  
and sold them on 01/16/93,  
I would have made a 1599.88% loss
```

where `ibm` is provided as a command line argument.

Let's start with something simpler

Problem

Print all but the first line of the file `gts.csv`.

Let's start with something simpler

Problem

For all but the first line of the file `gts.csv`, convert the first value to a `Date` object and the third and fourth value to values of type `double`.

Split a string

The class `String` contains the method

```
public String [] split (String s)
```

Splits this string around matches of the given string.

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Splits this string around matches of the given string.

Question

What is the return type of the `split` method?

Answer

`String []` : an array of `Strings`.

```
String example = "abc:def:x:y:z";  
String [] part = example.split(":");  
String first = part[0]; // "abc"  
String last = part[4]; // "z"  
String crash = part[5]; // crashes – throws an exception
```

Convert a String to a double

The class Double contains the method

```
public static double parseDouble(String s)
```

Parses the string argument as a double.

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A static method is invoked on a class (instead of an object).

```
String example = "123.5";
```

```
int value = Double.parseDouble(example);
```

Create a Date object

The class `SimpleDateFormat` contains the constructor

```
SimpleDateFormat(String pattern)
```

Constructs a `SimpleDateFormat` using the given pattern.

pattern	example
<code>yyyy.MMMMM.dd</code>	<code>2017.July.19</code>
<code>d-MM-yy</code>	<code>19-07-17</code>
<code>d/MMM/yy</code>	<code>19/Jul/17</code>

```
public Date parse(String source)
```

Parses the given string to produce a date.

Let's start with something simpler

Problem

Print the highest high value (the maximum of the third value of each but the first line).

Let's start with something simpler

Problem

Print the highest value (the maximum of the third value of each but the first line) and the date at which this highest value occurred.

Let's start with something simpler

Problem

Print

- the highest value (the maximum of the third value of each but the first line) and the date at which this highest value occurred.
- the lowest value (the minimum of the fourth value of each but the first line) and the date at which this lowest value occurred.

Problem

Print, for example,

If I had bought gts shares on 01/15/68
and sold them on 01/16/93,
I would have made a 1599.88% loss

Create a Date object

The class `SimpleDateFormat` contains the method

```
public String format(Date date)
```

Formats a `Date` into a string.

The class `PrintStream` contains the method

```
public PrintStream printf(String format, Object... args)
```

A convenience method to write a formatted string to this output stream using the specified format string and arguments.

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public PrintStream printf(String format, Object... args)
```

A convenience method to write a formatted string to this output stream using the specified format string and arguments.

`%d` whole number

`%f` floating point number

`%s` string

See <https://docs.oracle.com/javase/8/docs/api/java/util/Formatter.html#syntax> for more details.

Problem

Instead of using the file `gts.csv` use the file found at the URL

```
http://www.google.com/finance/historical?q=GTS  
&histperiod=daily&startdate=Jan+1+1970  
&enddate=Jul+19+2017&output=csv
```

The class `URL` contains the constructor

```
URL(String spec)
```

Creates a `URL` object from the `String` representation.

The class `Scanner` contains the constructor

```
Scanner(InputStream source)
```

Constructs a new `Scanner` that produces values scanned from the specified input stream.

From URL to InputStream

The class `URL` contains the method

```
public InputStream openStream()
```

Opens a connection to this `URL` and returns an `InputStream` for reading from that connection.

The class JOptionPane contains the method

```
public static String showInputDialog(Object message)
```

Shows a question-message dialog requesting input from the user.