

Assignment Zero CS562 Aug 24, 2006 -- not for credit, do not turn in --

Please address questions to:

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I. Probability theory =====

If you roll two six-sided dice (sides numbered 1 through 6), what is the chance the dice will sum to exactly 8?

II. Text corpus manipulation =====

Write a program to compute sorted frequencies of all words in an English document (output format like this):

```
14 the
14 test
12 specify
12 set
9 and
8 size
8 a
7 of
7 corpus
...
```

If you use Linux, try this: `% tr -cs 'a-zA-Z' ' ' < textfile | tr ' ' '\012' | sort | uniq -c | sort -nr | more`

III. Course software: Carmel =====

Carmel C++ source and binaries for Linux and Windows can be found at <http://www.isi.edu/licensed-sw/carmel/>, which also includes the Carmel tutorial. **Download and install** this software. A helpful note at the bottom of the download page says:

NOTE!!!!

After downloading, to install the software do the following:

1. Rename the file `carmel-tar-gz.pl` as `carmel.tar.gz` (`% mv carmel-tar-gz.pl carmel.tar.gz`)
2. Gunzip the software (`% gunzip carmel.tar.gz`)
3. Un-tar the software (`% tar -xvf carmel.tar`). [This will extract a directory called 'graehl']

Test the software by running:

```
graehl/carmel/bin/carmel
```

You **should see** something like:

```
usage: carmel [switches] [file1 file2 ... fileN]
composes a sequence of weighted finite state transducers and writes the
result to the standard output.
... (plus other text documenting usage) ...
```

(over)

IV. Course software: Tiburon =====

Java code for Tiburon can be found at <http://www.isi.edu/licensed-sw/tiburon/>, which also includes the Tiburon tutorial. **Download and install** this software. A helpful note at the bottom of the download page says:

NOTE!!!!

After downloading, to install the software do the following:

1. Rename the file tiburon-tar-gz.pl as tiburon.tar.gz
(% mv tiburon-tar-gz.pl tiburon.tar.gz)
2. Unzip and un-tar the software (% tar -xzvf tiburon.tar).

Test the software by running:

```
java -jar tiburon.jar
or
./tiburon [the $JAVA_HOME variable must be set]
```

after which **you should see** something like:

```
This is Tiburon, version 0.4.0
... (plus other text documenting usage) ...
```