Middle East Technical University
Department of Computer Engineering

# CENG 111

Spring '09

Take Home Exam 2

## REGULATIONS

**Due date:** 21 December 2009, Monday *(Not subject to postpone)*

**Submission:** Electronically. You will be submitting your program source code by writing it into a text a file which you will name as `the2.scm` and submitting it to the cow system. Resubmission is allowed (till the last moment of the due date), the last will replace the previous, provided you answer the interactive question positively.

**Team:** There is **no** teaming up. The Take Home Exam has to be done/turned in individually.

**Cheating:** All parts involved (source(s) and receiver(s)) get zero. Parts may face disiplinary action that corresponds to "cheating in an exam".

## PROBLEM

The problem is to hyphenate any Turkish word. So here are some examples of what is expected:

```
>(hyphenate 'ak)
ak

>(hyphenate 'ekim)
e-kim

>(hyphenate 'kal)
kal

>(hyphenate 'kalas)
ka-las

>(hyphenate 'fikriye)
fik-ri-ye
```

```
>(hyphenate 'saat)
sa-at

>(hyphenate 'kontrbas)
kontr-bas

>(hyphenate 'turkce)
turk-ce

>(hyphenate 'belirtim)
be-lir-tim

>(hyphenate 'belirtmek)
be-lirt-mek

>(hyphenate 'belirttirmek)
be-lirt-tir-mek

>(hyphenate 'avusturalyalilastiramadiklarimizdanmiymis)
a-vus-tu-ral-ya-li-las-ti-ra-ma-dik-la-ri-miz-dan-miy-mis
```

You don't have to worry about the Turkish special characters, their presence would not change the hyphenation algorithm, since the whole algorithm is based on the order of vowel/consonant properties of the constituent letters of the Turkish word.

We will be using letters only from the ASCII table and all will be lowercase.

**Note:** The hyphenation algorithm is extremely simple and is mainly based on a single rule.

# SPECIFICATIONS

- You are expected to write a function that you will name as `hyphenate` and takes a word of Turkish as input and hyphenate it by putting dashes (minus signs) between the syllables as it is shown in the examples.
- You are free to write any number of helper functions.
- You are not allowed to use recursion. We will check it explicitely, if you do so, your exam will be graded 0 (zero).
- You can use any predefined function from Simply Scheme (including the higher order functions).
- No need to perform any error check.