COL100 Assignment 0

Due date: Friday, 27 November, 2020

1. Go to the COL100 homepage (`http://www.cse.iitd.ac.in/~narain/courses/col100/`) and read it from top to bottom.

2. Open Microsoft Teams and go to the team named "2001-COL100L*n*", where *n* is a number between 1 and 10. This team is your lab section for COL100. Find the "Introductions" channel under this team, and send a message introducing yourself (e.g. "Hi, I am Rahul Narain and I am in the CSE department").

3. Make sure you are registered on the COL100 Piazza page (`https://piazza.com/iit_delhi/fall2020/col100`) and understand how to ask and answer questions there.

4. Go to `https://sosml.org/editor` and familiarize yourself with the environment. Type in all of the examples shown in Sections 3.1 to 3.3 of the lecture notes, and check that the results are as expected.

5. Create an SML file named `EntryNumber_A0.sml` that contains only one line of code, as follows:

   ```
   val name = "FirstName LastName";
   ```

   For example, if your name is Rahul Yadav and your entry number is 2017CS50602, you should create a file called `2017CS50602_A0.sml` containing the line below.

   ```
   val name = "Rahul Yadav";
   ```

   Submit this file on the assignment link on Moodle.

6. Think of a calculation method you have learnt in school, such as long multiplication, long division, GCD, LCM, prime factorization, etc. (anything more advanced than addition). Write your chosen method as an algorithm, i.e. an unambiguous sequence of step-by-step instructions that someone can carry out without any deeper understanding. This should be written in English, not any programming language, as if you are giving someone a recipe to follow to get the answer.

   Also try to justify why the algorithm gives the correct result. Your justification can be informal, but make it as precise and convincing as you can. Submit the algorithm and justification to Moodle as well.