Lab 1b.

Introduction to C-Programming

Marten van Dijk, Chenglu Jin
Department of Electrical & Computer Engineering
University of Connecticut
Email: {marten.van_dijk, chenglu.jin}@uconn.edu

UCONN

Prerequisites

- Eclipse development environment (with C Development Tools) installed

- Basic understanding of C Programming

Task 1: Analyzing the Email Address

We want to determine if the email address entered by a user is of a valid format or not.

- Write a C program that takes an email address as input (character by character) and verifies that:
  1. It contains one and only one "at" sign '@'
  2. It contains at least one period '.' which succeeds the '@' sign

- Please read the input character by character, and implement a state machine to analyze the input.

- For example
  - alice@gmail.com is considered valid.
  - alice@mydomain.co.uk is considered valid
  - alice@gmail@.com is considered invalid
  - alice@gmailcom is considered invalid

Task 2: Analyzing the Email Address

We want to determine if the email address entered by a user is of a valid format or not.

- Write a C program that takes an email address as input (character by character) and verifies that it is of the form -----@----.uconn.----
  - I.e. It contains one and only one at sign '@'
  - It contains ".uconn." character sequence which succeeds the '@' sign
  - The special characters '@' and '.' cannot be consecutive, i.e. '@.', '@@', '..', and '.@' are invalid
  - Please read the input character by character, and implement a state machine to analyze the input.

- For example
  - alice@engr.uconn.edu is considered valid.
  - alice@mydomain.uconn.co.uk is also considered valid
  - alice@engr..uconn.edu is considered invalid
  - alice@engruconnedu is considered invalid