SAN DIEGO STATE
UNIVERSITY
Leadership Starts Here

Deepika Urs

Formal Languages - Educational Database

Abstract

This thesis focuses on developing an application which can be used to generate finite automata from a given grammar. The main purpose of this application is to assist the learning experience for the classes CS562(Finite Automata) CS620(Formal Languages) offered at San Diego State University. The system is using web-based technologies to generate automata. The reason for a web based system is that once deployed on a server, the system can be accessed anywhere on web and can be used to generate automata in any environment irrespective of the platform used on a machine. Implementation details of the system. This web based system consists of three parts which are also called modules. The three modules of the system are – Database – stores the information about the given grammar inputs, so that the automata can be generated again, if need be Logic – generates the automata by taking the inputs from the database. Presentation – shows the graph in a user friendly manner to the user and will be providing the facilities to input the grammar to generate the automata. This thesis included research work of two people. My work was on Database implementation which included user management as well as managing the input grammar and language. My colleague Divyashree Vijaykumar worked on graphical representation of the finite automata.

Thesis Committee

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