University of Dhaka

Institute of Information Technology (IIT)

Bachelor of Science in Software Engineering (BSSE)

Course: **SE312 Theory of Computing (Section: B)**
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Lab 02

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1. Write a program to implement a Deterministic Finite Automaton (DFA) to recognize a language *L* over the given alphabet Σ. For example, the language *L* consists of strings ending with 00. Your goal is to create a DFA that accepts strings belonging to the language L and rejects strings that do not satisfy this condition.

   Your program should take the following inputs:

   - a set of states, *Q* that your DFA consists of;
   - the input symbols of the alphabet, Σ;
   - the transition function δ;
   - the start state;
   - the final state;
   - the input string.

   Your program should print the following outputs:

   - Accepted/ Rejected
   - the path of transition for the input string