

CS 201 Data Structures II – Spring 2024

Instructor: Dr. Muhammad Mobeen Movania

Quiz 5 - Solution

Name: _____

Date: _____

Regn. No. : _____

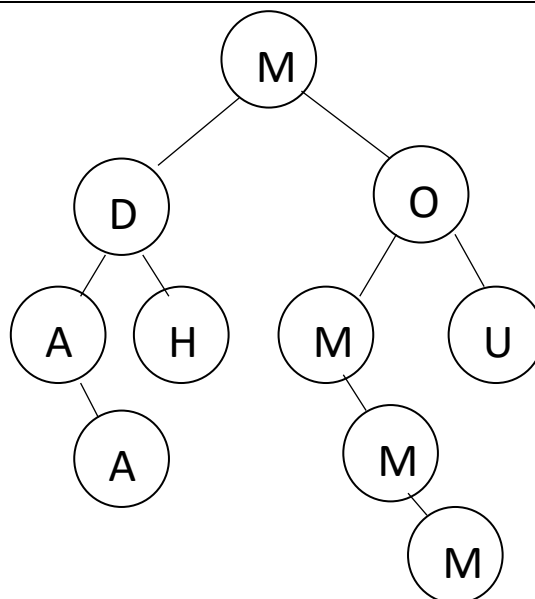
Time limit: 30 mins

There are four questions in this quiz. Marks assigned are mentioned at the start of each question.

Q1) (3 marks) Generate a BST using the first 10 characters from your full name excluding spaces. If the length of your name is less than 10 then append characters starting from A,B,C until the length becomes 10.

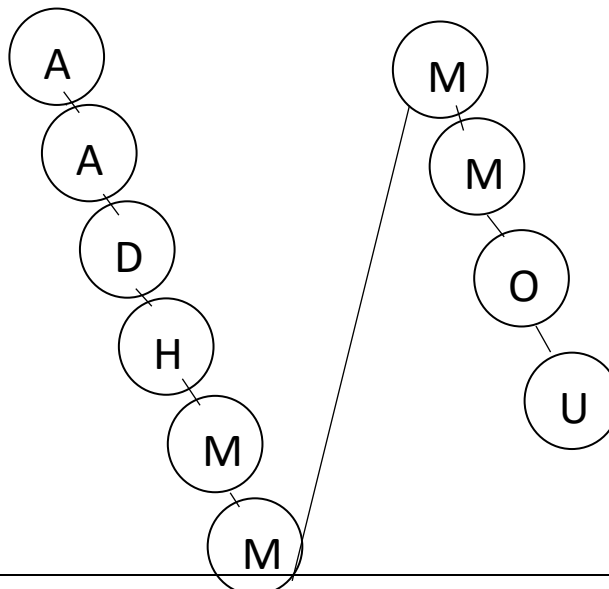
Ans.

Data: MUHAMMADMO



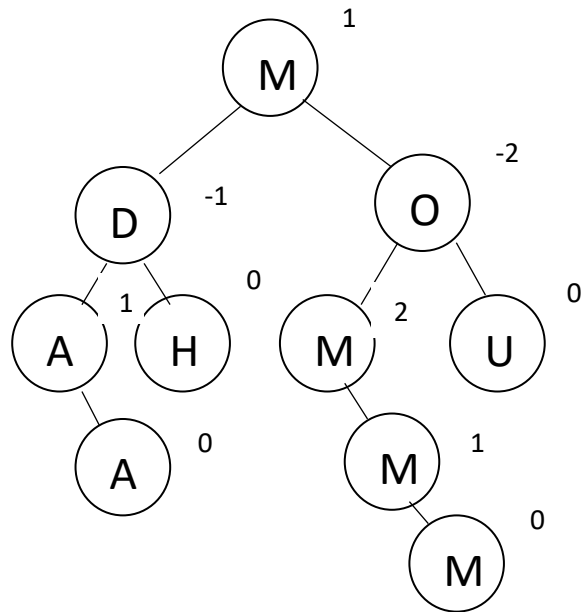
Q2) (2 marks) Use the data from Q1 but sort the data in ascending order and then store it in a BST?

Ans. Data: AADHMMMMOU



Q3) (2 marks) Calculate the balance factors of all nodes of BST in Q1?

Ans.



Q4) (3 marks) Generate a treap using min heap from the data in Q1. Assign priority based on the alphabetic order that is A should be given the smallest priority value of 1 and Z should be given the biggest priority value 26.

Ans. Data: AADHMMMMOU

