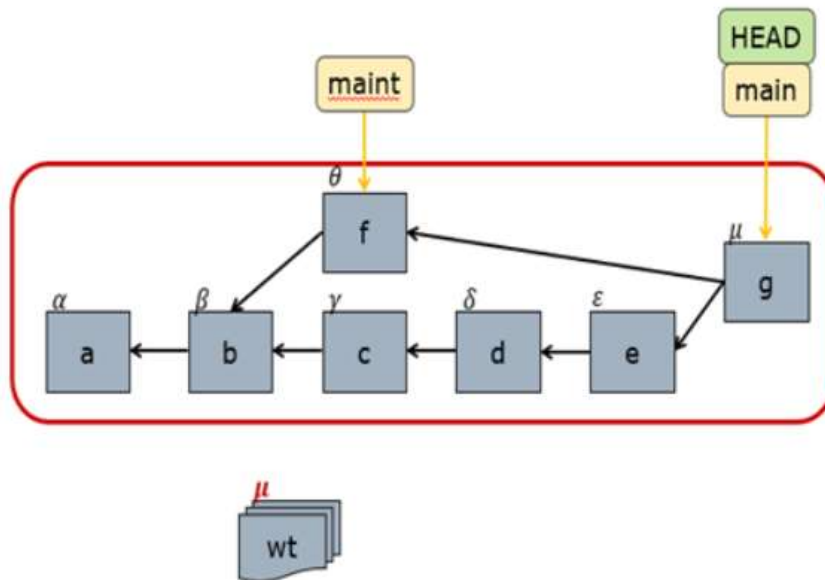


1. Using Git, generate the diagram given:



2. Generate a random sequence of 8 lower case letters, without repetition.
3. Write a program that reads in a list of names from stdin (keyboard), then prints out the list in alphabetical order in all-caps.
4. Given a string, say 'a#asg#sdfg#d##', produce an array of indices where '#' occurs in the string. The result should be [1, 5, 10, 12, 13]
5. Given an array of integers, say [1, 2, 3, 7, 7, 1, 4, 5, 6, 2], produce the array that includes only the even elements, each squared. The result should be [4, 16, 36, 4]
6. Given an array of (a mix of) integers and array of integers, where the (top level) integers are unique, say [3, 5, [4, 5, 9], 1, [1, 2, 3, 8, 9]], remove from the contained arrays all occurrences of the top level integers. The result should be [3, 5, [4, 9], 1, [2, 8, 9]]
7. Write the Ruby code that, given an array of strings, say ["car", "van", "car", "car"], computes frequency of occurrence of each word. The result should be {"car" => 3, "van" => 1}
8. Write a Ruby code that checks if a phone number is in valid format.
9. Write the code to implement the diagram below:

