CLASSICAL AND QUANTUM COMPUTING
EXERCISE XV

Design a Mealy machine to represent a vending machine which provides a carbonated drink for R 2,50. The machine accepts 50c, R1 and R2 coins. The symbol (number) output by the machine is interpreted as change (in cents) for the customer. The symbol "C" output by the machine is interpreted as the output of the carbonated drink. We allow null output, i.e. output which does not actually appear (empty string). Thus the output "symbols" we could expect are the strings

"", "C", "C50", "C100", "C150".

Write a C++ or Java program to simulate the machine you have designed.