**HealthTrust PEM Team Interview Pre-Assignment v1.1**

Based on the following instructions, please provide a solution for the scenario described below. During the team interview, we will ask you to present your solution. Be prepared to share your screen, discuss your solution and design choices, and make modifications to your code as required.

**Instructions:**

* Code must be submitted in a GitHub repository at least one day prior to your scheduled interview
* Provide a readme file explaining how to set up and run your solution
* Provide a web UI implemented in your choice of either Vue, Angular, or React
* Provide an API implemented in C#
* Provide a relational database using the technology of your choice
  + Reports should be .sql files which can run against your database
* KEEP IT SIMPLE: Build a minimum viable product with a solid architecture but without gold plating
* Your solution must function: A totally non-functioning submission will result in your follow-up interview being canceled

**Scenario:**

HealthTrust is starting a subsidiary called SnackTrust to develop a line of custom vending machines. For this exercise, please build a vending machine simulator based on the following functional and non-functional requirements. You should use your technical expertise and domain knowledge to interpret the requirements and make decisions about anything unspecified.

**Functional:**

* The vending machine must display a list of items, their price, and the quantity in-stock
* The vending machine must allow the user to deposit currency
  + The vending machine must accept the following denominations of US currency: nickel, dime, quarter, and dollar bill
* The vending machine must allow the user to cancel their transaction and return any money deposited
* The vending machine must allow the user to purchase items
  + Items in the machine are not necessarily all priced the same
* The vending machine must calculate and display change to be dispensed
  + The change dispenser can only handle coins; it cannot dispense paper currency
  + Assume the machine has an unlimited supply of all supported denominations of coin from which to make change
* Administrators must be able to produce the following reports:
  + Day-by-day sales for the previous 30 days
  + 10 most popular items for the previous week

**Non-functional:**

* The inventory of the machine must be stored in a database
  + No UI for managing inventory should be provided