**Aim:**

To develop a small scale vegetable vendor system using oops concept and design patterns

**Problem description:**

An application is developed by creating three classes namely: login, customer and vendor

The login class uses the iterator pattern which helps it iterate through the customer.json file to check if the user given credentials exist. The iterator class is imported in the form of package.

The username and password are checked if they are valid by using RegEx.

The Customer and Vendor classes uses the concept of serialization to traverse through the Product.json file for bill generation and and modification respectively.

**CapitalIterable** self.lst -contains a list of either usernames or passwords

\_\_iter\_\_ - calls the CapitalIterator class

**CapitalIterator** - self.lst -contains a list of either usernames or passwords

\_\_next\_\_ - traverses through the the list and returns the value

**Login** – login()- checks if the input of username and password are correct or not

* Password() – checks if the password entered satisfies the condition of password using RegEx

**Vendor** – z – contains the name of the vegetable

append() – Adds the details of the new vegetable in the product file

Remove() – Removes the vegetable from the product file

**Customer** – cart – contains the vegetable name and quantity

Generate\_bill () – Generates the bill and displays appropriate message