**Application For Vaccination Drive**

Need to prepare a console application for Vaccination drive for the beneficiary and dosage tracking. The application should allow to do below process.

# Main Menu:

1. **Beneficiary Registration**
2. **Login**
3. **Get Vaccine Info**
4. **Exit**

## Beneficiary Registration:

On selection of the “**Beneficiary Registration**” option from the main menu,

1. Need to get the below details from user for the beneficiary registration.
   1. Name
   2. Age
   3. Gender
   4. Mobile Number
   5. City
2. After completion of the beneficiary registration, we need to display the registration number (auto generation number).

## Login

On selection of submenu ask user to enter his beneficiary register number. Validate the register number if it is not found then show “**Invalid Register Number**”. Or else show “**Login successful**” and show the following submenu.

1. **Show My Details**
2. **Take Vaccination**
3. **My Vaccination History**
4. **Next Due Date**
5. **Exit**

# Sub Menu

* 1. **Show My Details**

Show the current beneficiary’s personal details in console.

* 1. **Take vaccination**

Show the list of vaccine available and to select a vaccine.

* Ask the user to select a vaccine by using vaccine ID and find the ID is valid.
  + Then, get the vaccination history of current logged in beneficiary.
    - If he didn’t take any vaccine means check his age is above 14.
    - If yes, then allow him to take that vaccine.
      * Update the details in his vaccination history list
      * Deduct the count of vaccine available.
  + If he took three vaccines means show “**All the three Vaccination are completed, you cannot be vaccinated now**”.
  + If he took one or two vaccines in his vaccination history, then find that he had selected the same vaccine type now.
    - If it is yes, then check date of his last vaccination and find whether 30 days have completed.
      * If it is yes, then allow him to take vaccination.
      * Add the details to his vaccination list
      * Deduct the count of vaccine available.
    - If it is no, then show “**You have selected different vaccine”. You can vaccine with “Covaccine / Covishield (His first / second dose vaccine type)**” take vaccination process again.
  1. **Vaccination History**

Show the vaccination details of the current beneficiary if he had completed first/ second/ third vaccinations.

* 1. **Next Due Date**
* Show the next due date for the current beneficiary by finding his details from his vaccination history.
* If he didn’t take any dose already. Then show “**you can take vaccine now**”.
* If either first or second dose of vaccine completed means Add 30 days to find the next due date to vaccine.
* If he completed the third dose, display “**You have completed all vaccination. Thanks for your participation in the vaccination drive.**”
  1. **Exit Submenu**

Exit and go to the main menu.

## Get Vaccine Info

Show the available vaccine name and count details in the current date to plan your vaccination today.

## Exit Main Menu

Close the application

## Beneficiary Class:

Beneficiary Class should have below properties.

**Properties**:

1. Registration Number (Auto Incremented BID1001)
2. Name
3. Age
4. Gender (Enum [Male, Female, Others])
5. Mobile Number
6. City

## Vaccine Class:

Vaccine class should have the following properties:

**Properties:**

* 1. VaccineID {Auto Incremented ID – CID2001}
  2. VaccineName {Enum – Covishield, Covaccine}
  3. NoOfDoseAvailable

## Vaccination Class:

Vaccination Class should have below properties.

**Properties**:

* VaccinationID (Auto increment – VID3001)
* Registration Number (Beneficiary Reg. num)
* VaccineID
* DoseNumber – (1,2,3)
* Vaccinated Date (DateTime.Now)

\*\*\* Find default details of the above class in the next page

# Default Details of Beneficiary Class:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Register Number** | **Name** | **Age** | **Gender** | **Mobile** | **City** |
| BID1001 | Ravichandran | 21 | Male | 8484484 | Chennai |
| BID1002 | Baskaran | 22 | Male | 8484747 | Chennai |

# Default Details of Vaccine Class:

|  |  |  |
| --- | --- | --- |
| **VaccineID** | **VaccineName** | **NoOfDoseAvailable** |
| CID2001 | Covishield | 50 |
| CID2002 | Covaccine | 50 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **VaccinationID** | **RegisterNumber** | **VaccineID** | **DoseNumber** | **VaccinatedDate** |
| VID3001 | BID1001 | CID2001 | 1 | 11/11/2021 |
| VID3002 | BID1001 | CID2001 | 2 | 11/03/2022 |
| VID3003 | BID1002 | CID2002 | 1 | 04/04/2022 |

# Default Details of Vaccination Class: