



Mobile Clinical App

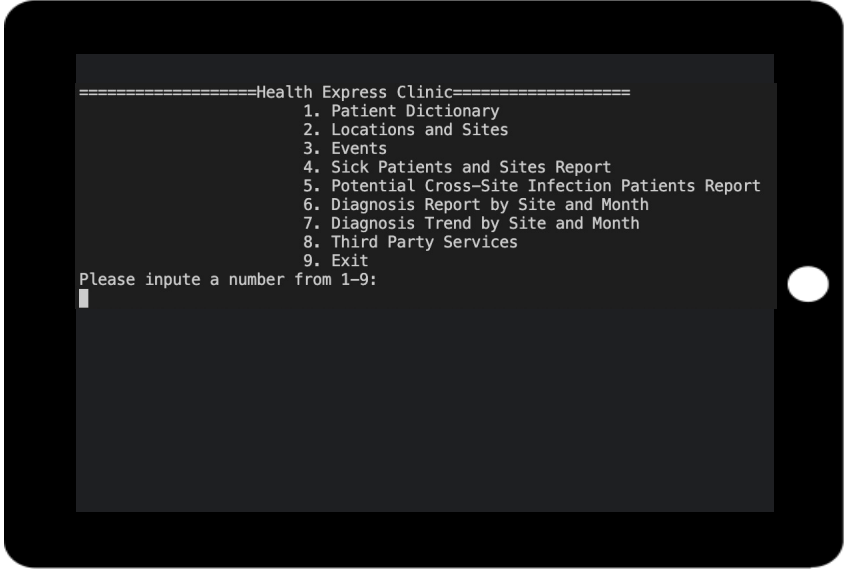
*for the care of the
homeless-state-wide*

Team Name: Evolution

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Ideas

- Defined a ConfigureAClinic class to create a clinic with a lot of data and built multiple methods to populate this model and solve problems.
- Created a menu with 9 options for users to choose from. The options include a patient dictionary, locations and sites, events, reports about the four questions, and the option to exit the menu

A tablet device is shown, displaying a terminal window. The terminal window has a dark background with light-colored text. At the top, it says '====Health Express Clinic===='. Below this, there is a numbered list of 9 options: 1. Patient Dictionary, 2. Locations and Sites, 3. Events, 4. Sick Patients and Sites Report, 5. Potential Cross-Site Infection Patients Report, 6. Diagnosis Report by Site and Month, 7. Diagnosis Trend by Site and Month, 8. Third Party Services, and 9. Exit. Below the list, it says 'Please input a number from 1-9:' followed by a cursor (a small vertical bar).

```
====Health Express Clinic====
1. Patient Dictionary
2. Locations and Sites
3. Events
4. Sick Patients and Sites Report
5. Potential Cross-Site Infection Patients Report
6. Diagnosis Report by Site and Month
7. Diagnosis Trend by Site and Month
8. Third Party Services
9. Exit
Please input a number from 1-9:
█
```

Ideas

1. Patient Dictionary

- **Configure:** Loaded the detailed information of all patients including ID, age and name using Faker randomly
- **Print Out:** Index, ID, Age and Name of the patient.
Detailed information of patients by inputting patient index, including medical history and encounter history

```
Please input a number from 1-9:
1
=====Patient Directory=====
Index  ID           Age      Name
1      WDLJHKMP32NK  28      Shara Collier
2      WDLRGBYRR854  43      Stevie Bode
3      WDLVLQEOPIAA  57      Mr. Arnoldo Jones
4      WDL5UQORBTG   64      Dallas Maggio
.....
195    WDLVMUTP6JV4   40      Ruthanne Champlin
196    WDLHPPY000JR   23      Elroy Reynolds
197    WDL0ED711JJ    21      Reinaldo O'Conner
198    WDL1YSXIRXLI   48      Maryanna Lakin
199    WDLY8X1KT9AB   62      Sandy Willms
200    WDL0SJFTBPF9   25      Lyle Kunze DVM
Input the index of a patient to see detailed info:
```

```
Input the index of a patient to see detailed info:
2
=====Patient Detailed Info=====
ID: WDLRGBYRR854 Age: 43 Name: Stevie Bode
VaccinationHistory: [Flu]
AllergyHistory: [Peanut]
-----EncounterHistory:-----
Date: 2023-03 Site: QueenAnne
ChiefComplaint: Sore Throat
VitalSigns: [BP:85 normal]
Diagnosis: infectious confirmed
Referral: type: PM name: PharmarcyQA
```

Ideas

2. Locations and Sites

- **Configure:** Created one location called Seattle and added 4 sites on the location
- **Print Out:** Detailed information of locations and sites

3. Events

- **Configure:** Created 12 events based on 4 sites and 3 dates and created encounters with these events
- **Print Out:** Scheduled events information with date, site and encounter count

Please input a number from 1-9:

2

=====Site Catalog=====

Location	Site
Seattle	SouthLakeUnion
Seattle	CapitolHill
Seattle	QueenAnne
Seattle	DownTownSea

Please input a number from 1-9:

3

=====Event Info=====

date	site	encounter count
2023-01	SouthLakeUnion	18
2023-02	SouthLakeUnion	17
2023-03	SouthLakeUnion	11
2023-01	CapitolHill	18
2023-02	CapitolHill	21
2023-03	CapitolHill	10
2023-01	QueenAnne	14
2023-02	QueenAnne	17
2023-03	QueenAnne	22
2023-01	DownTownSea	12
2023-02	DownTownSea	22
2023-03	DownTownSea	18

Ideas >> Solutions

4. Sick Patients and Sites Report

--> Question 1: Is there an easy way to find sick patients and locations were last seen?

- **Print Out:** Selected patients whose last diagnosis is confirmed to have disease and get their location and date

```
Please input a number from 1-9:
4
=====Sick Patients and Sites Report=====
Date and sites last seen      Id      Name
2023-03 QueenAnne            WDLRGBYRR854    Stevie Bode
2023-02 SouthLakeUnion       WDLVLQE0PIAA    Mr. Arnoldo Jones
2023-02 CapitolHill          WDLUT6SWMH8Z    Joaquina Mueller
2023-01 SouthLakeUnion       WDLVW779PRY4    Elsie Mraz DVM
2023-01 SouthLakeUnion       WDL6UHKR9S6P    Jung Koelpin

.....

2023-03 DownTownSea          WDL1SCUH776N    Gabriel Hansen
2023-02 DownTownSea          WDL4BEU2XD6N    Mr. Enrique Bruen
2023-02 CapitolHill          WDL8KF64Y7J7    Guillermo Bernier
2023-01 QueenAnne            WDLVMUTP6JV4    Ruthanne Champlin
2023-02 DownTownSea          WDL1YSXIRXLI    Maryanna Lakin
```

5. Potential Cross-Site Infection Patients Report

--> Question 2: Is there a way to find patients that might have infected others in other locations?

- **Print Out:** Selected patients who was confirmed infected in the past encounters and has visited more than one sites

```
Please input a number from 1-9:
5
=====Potential Cross-Site Infection Patients Report=====
Visited sites  Id      Name
2             WDLVW779PRY4    Elsie Mraz DVM
2             WDLPIG2M0Q88    Mohammad Lowe
2             WDLVG1DLZJN8    Royal Borer
2             WDLXVC34TPL6    Cyrus Hand
2             WDLKXTH24DGZ    Else DuBuque

.....

3             WDLAHFLC9HVY    Wesley Dicki
2             WDLZX4QMN4HY    Carroll Ullrich
2             WDLVDPKUV85I    Brook Gulowski
3             WDL9PF5AB0NY    Vern Littel
2             WDL1SCUH776N    Gabriel Hansen
2             WDL4BEU2XD6N    Mr. Enrique Bruen
3             WDL8KF64Y7J7    Guillermo Bernier
3             WDLVMUTP6JV4    Ruthanne Champlin
```

Ideas >> Solutions

6. Diagnosis Report by Site and Month

→ Question 3: Is there a way to show the number of infection incidents by location. How diagnosed incidents are trending by location?

- **Configure:** Randomly refer sick patients to the services located in the sites where the patient visited
- **Print Out:** For each event, get total incidents, confirmed patients amount, the infections amount, infections rate and referrals to third party services

```
Please input a number from 1-9:
6
=====Diagnosis Report by Site and Month=====
Month: 2023-01 Location: Seattle
Incidents    Confirmed    Infectious    Other    Infectious rate(Infections/Total Incidents)    Referrals to ThirdPartyService
SouthLakeUnion 18           8           3           5           17%           2
CapitolHill    18           12          4           8           22%           8
QueenAnne      14           7           2           5           14%           3
DownTownSea    12           5           3           2           25%           1
-----
Month: 2023-02 Location: Seattle
Incidents    Confirmed    Infectious    Other    Infectious rate(Infections/Total Incidents)    Referrals to ThirdPartyService
SouthLakeUnion 17           11          7           4           41%           6
CapitolHill    21           7           4           3           19%           3
QueenAnne      17           9           3           6           18%           3
DownTownSea    22           10          7           3           32%           6
-----
Month: 2023-03 Location: Seattle
Incidents    Confirmed    Infectious    Other    Infectious rate(Infections/Total Incidents)    Referrals to ThirdPartyService
SouthLakeUnion 11           5           3           2           27%           4
CapitolHill    10           6           4           2           40%           2
QueenAnne      22           8           3           5           14%           2
DownTownSea    18           9           5           4           28%           3
-----
```

Ideas >> Solutions

7. Diagnosis Trend by Site and Month

--> Question 3: Is there a way to show the number of infection incidents by location. How diagnosed incidents are trending by location?

- **Print Out:** The number of infected people and the infection rate for each place each month, so that we can clearly see the trend of the infection rate in each place.

```
Please input a number from 1-9:
7
=====Diagnosis Trend by Site and Month(show numbers and rates at the same time)=====
Month      2023-01      2023-02      2023-03
SouthLakeUnion 3|17%      7|41%      3|27%
CapitolHill    4|22%      4|19%      4|40%
QueenAnne      2|14%      3|18%      3|14%
DownTownSea    3|25%      7|32%      5|28%
```

Ideas >> Solutions

8. Third Party Services

--> Question 4: What if we want to include local services completing the mobile clinic such as local mental health care services to be leveraged in response to sick patients?

- **Configure:** For every sites, assigned 2-6 local services
- **Print Out:** The number and type of the third party services in every site

```
Please input a number from 1-9:
8
=====Third Party Services Info=====
Pharmacy      MentalHealth  PhysicalTherapy
SouthLakeUnion:  2             1             1
CapitolHill:    1             2             1
QueenAnne:      1             1             2
DownTownSea:    2             2             2
```

9. Exit

- Users can use this option to exit the system