

# Hospital Management System: Queue with Linked List













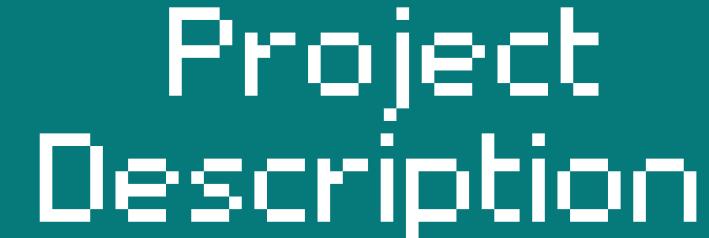






















• Use linked lists and queue data structures to organize data effectively.

Project

• This system helps workers to add and remove patient info, searching sorting and edit patient medical history.





















## Project Design





- name: string
- ic: string
- age: int
- gender: string
- contactNum: string
- disease: string
- date: string
- next: Patient\*
- + Patient()
- + Patient(string, string, int, string, string, string, string)
- + getName(): string
- + getIC(): string
- + getAge(): int
- + getGender(): string
- + getContactNum(): string
- + getDisease(): string
- + getDate(): string
- + setName(string): void
- + setIC(string): void
- + setAge(int): void
- + setGender(string): void
- + setContactNum(string): void
- + setDisease(string): void
- + setDate(string): void
- + display(): void



- front: Patient\*
- back: Patient\*
- + enQueue(): void
- + deQueue(): void
- + isEmpty(); bool
- + enQueue(string, string, int, string, int,

string, string ): void

- + deQueueByName(string): void
- + searchByName(string): Patient\*
- + searchByIC(string): Patient\*
- + searchByDisease(string): Patient\*
- + mergeSortByName(): void
- + mergeSortByIC(): void
- + mergeSortByDisease(): void
- + print(): void
- + save(): void

















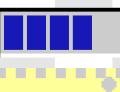


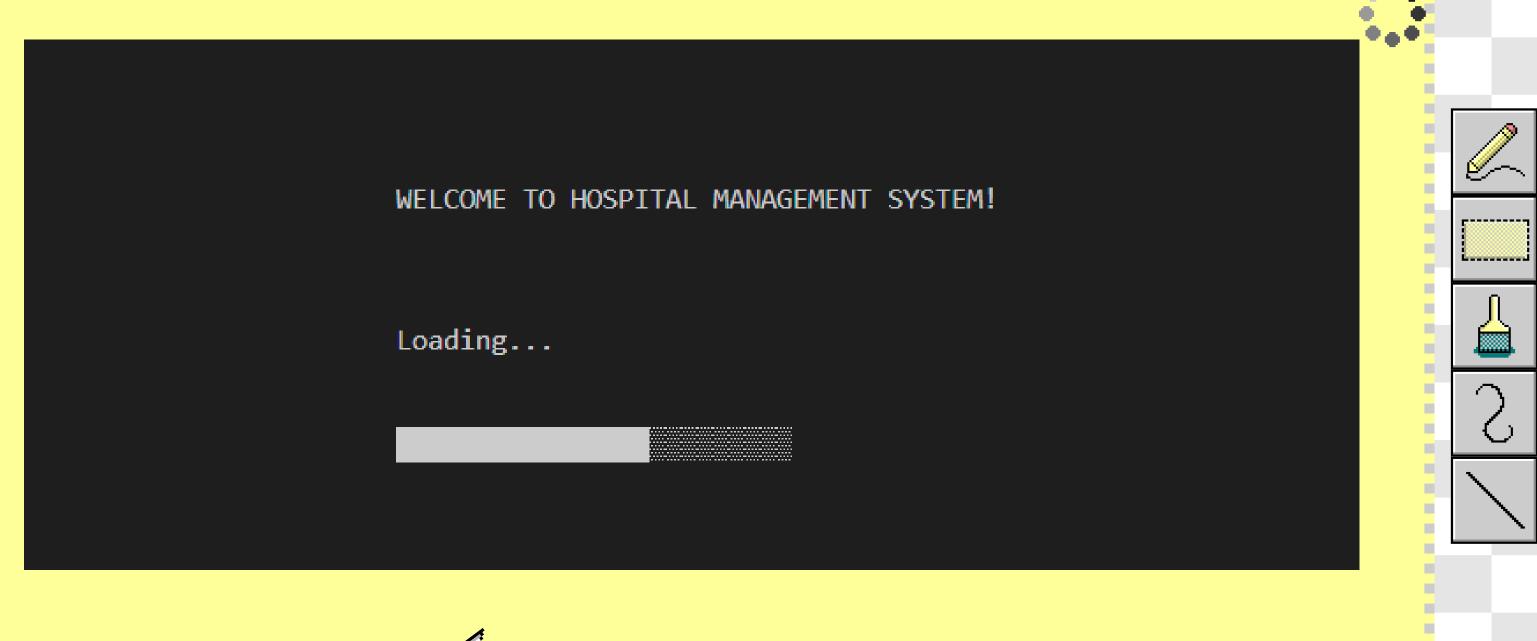






### Project Design & Interfaces





n Header • Section Header

### MAIN PAGE:



Hospital Management System

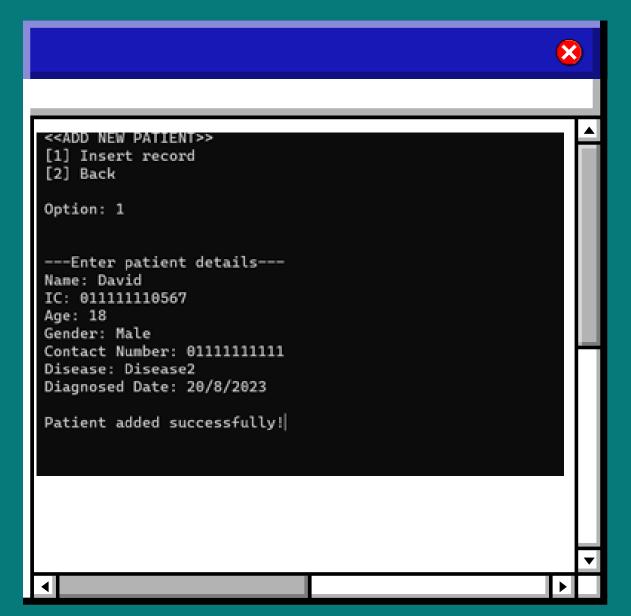
<<MAIN PAGE>>

- [1] Add new patient
- [2] Delete patient
- [3] Search patient
- [4] Sort patient
- [5] Display patient list
- [6] Edit patient info
- [7] Logout

Option:

#### Added:

#### Add New Patient:



Ali bin Abu|020917052131|21|Male|01319972345|Disease1|23/12/2023
Sabrina|971010012234|26|Female|0126672318|Disease2|20/11/2023
Lim Ching Chong|031209151097|20|Male|01110952318|Disease3|19/10/2023
Sakura Imoto|071109191177|17|Female|01215552481|Disease2|11/10/2023
Chloe Lee|000321070045|23|Female|01719972345|Disease4|07/09/2023
joan lee|030917092345|20|Female|0121234567|Disease5|12/11/2023
Davie|111011130111|13|Male|0191234567|Diarrhea|19/2/2023
Joseph|011111131111|15|Male|01110123456|Fever|19/2/2023
David|011111110567|18|Male|0111111111|Disease2|20/8/2023









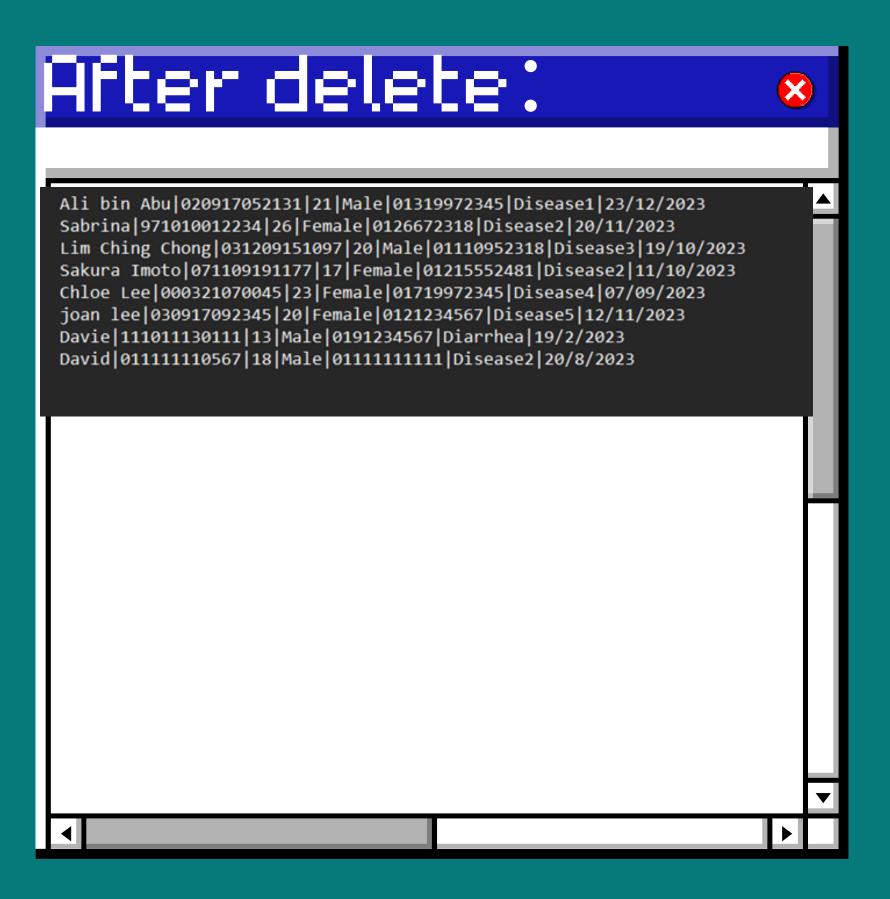




## Delete Patient:

<<DELETE PATIENT>>
Enter patient name to delete:

#### 















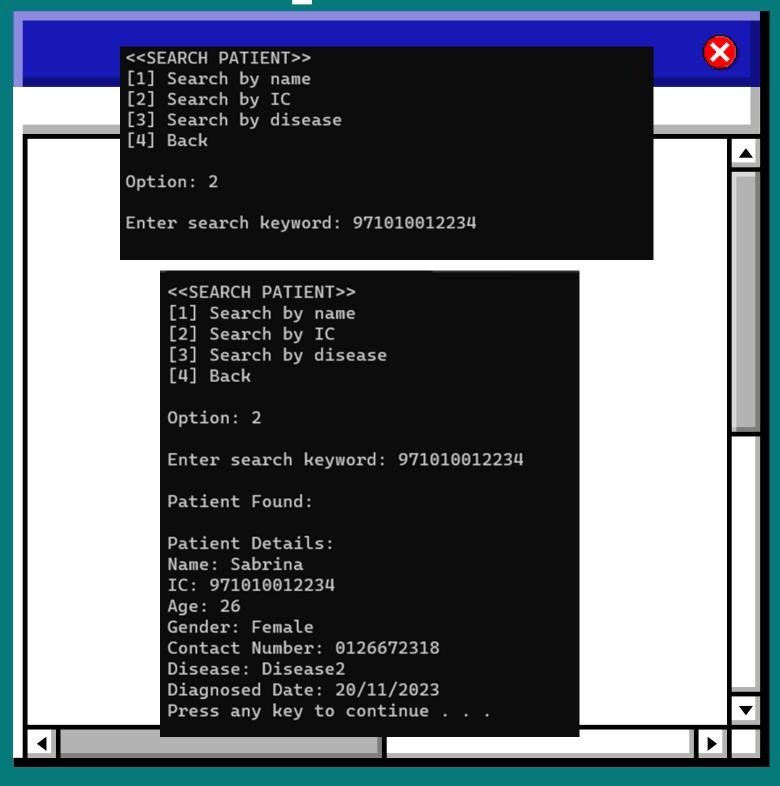
Search Patient

<<SEARCH PATIENT>>
[1] Search by name
[2] Search by IC
[3] Search by disease
[4] Back
Option:

#### Search By Name:

```
<<SEARCH PATIENT>>
[1] Search by name
[2] Search by IC
[3] Search by disease
[4] Back
Option: 1
Enter search keyword: joan lee
Patient Found:
Patient Details:
Name: joan lee
IC: 030917092345
Age: 20
Gender: Female
Contact Number: 0121234567
Disease: Disease5
Diagnosed Date: 12/11/2023
Press any key to continue . . .
```

#### Search By IC:











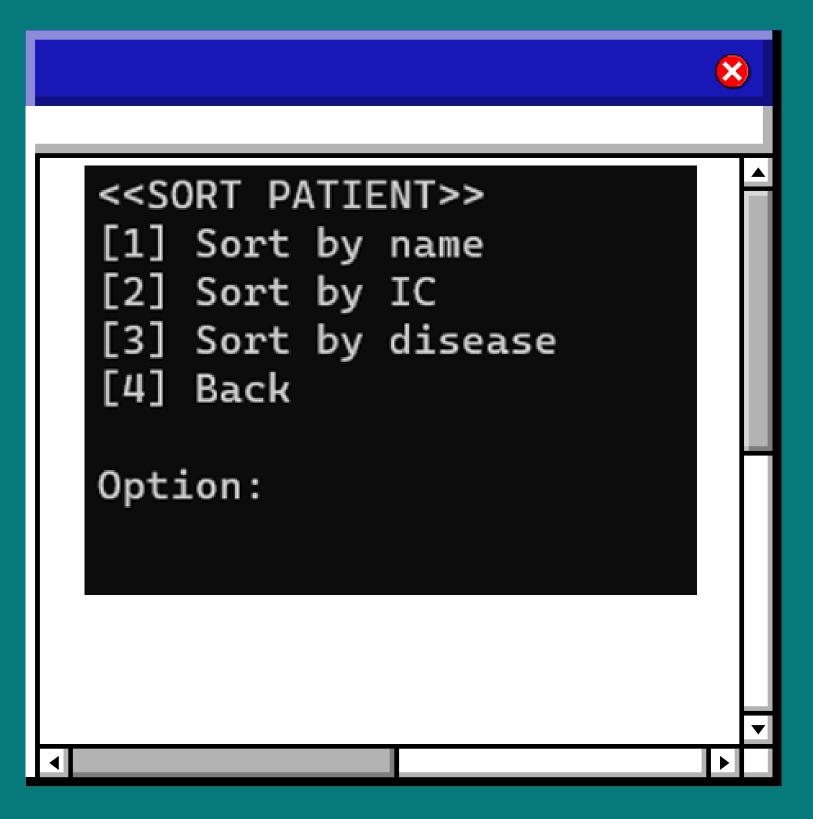




#### Search By Disease:

```
<<SEARCH PATIENT>>
[1] Search by name
[2] Search by IC
[3] Search by disease
[4] Back
Option: 3
Enter search keyword: Disease1
```

#### Sort Menu:











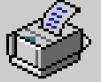




## Search By Disease:

```
<<SEARCH PATIENT>>
[1] Search by name
[2] Search by IC
[3] Search by disease
[4] Back
Option: 3
Enter search keyword: Disease1
```













#### Sort By Disease:

<<SORT PATIENT>> [1] Sort by name [2] Sort by IC [3] Sort by disease [4] Back Option: Patient list sorted by disease. Patient Record: Name IC Age Gender Contact Number Disease Diagnosed Date 111011130111 13 Male 0191234567 Diarrhea 19/2/2023 Diarrhea Davie 111011130111 13 0191234567 19/2/2023 Male Ali bin Abu 01319972345 Disease1 23/12/2023 020917052131 21 Male 011111110567 18 01111111111 Disease2 20/8/2023 Male 20/8/2023 David 011111110567 01111111111 Disease2 18 Male 01215552481 Sakura Imoto 071109191177 17 Disease2 11/10/2023 Female Sabrina 0126672318 Disease2 20/11/2023 971010012234 26 Female Lim Ching Chong 031209151097 20 Male 01110952318 Disease3 19/10/2023 Chloe Lee 000321070045 23 Female 01719972345 Disease4 07/09/2023 0121234567 Disease5 12/11/2023 joan lee 030917092345 20 Female 0111111131111 15 Male 01110123456 19/2/2023 Fever 19/2/2023 Joseph 0111111131111 15 Male 01110123456 Fever













### Display Patient Record:



<<DISPLAY PATIENT>>

- [1] Display list [2] Back

Option: 1

Patient Record:

Name	IC	Age	Gender	Contact Number	Disease	Diagnosed Date
	111011130111	13	Male	0191234567	Diarrhea	19/2/2023
Davie	111011130111	13	Male	0191234567	Diarrhea	19/2/2023
Ali bin Abu	020917052131	21	Male	01319972345	Disease1	23/12/2023
	011111110567	18	Male	0111111111	Disease2	20/8/2023
David	011111110567	18	Male	0111111111	Disease2	20/8/2023
Sakura Imoto	071109191177	17	Female	01215552481	Disease2	11/10/2023
Sabrina	971010012234	26	Female	0126672318	Disease2	20/11/2023
Lim Ching Chong	031209151097	20	Male	01110952318	Disease3	19/10/2023
Chloe Lee	000321070045	23	Female	01719972345	Disease4	07/09/2023
joan lee	030917092345	20	Female	0121234567	Disease5	12/11/2023
	0111111131111	15	Male	01110123456	Fever	19/2/2023
Joseph	0111111131111	15	Male	01110123456	Fever	19/2/2023





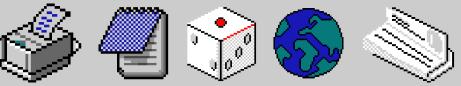


Press any key to continue . . .









#### Edit Patient Record:



Patient Record:						
Name	IC	Age	Gender	Contact Number	Disease	Diagnosed Date
	111011130111	13	Male	0191234567	Diarrhea	19/2/2023
Davie	111011130111	13	Male	0191234567	Diarrhea	19/2/2023
Ali bin Abu	020917052131	21	Male	01319972345	Disease1	23/12/2023
	011111110567	18	Male	0111111111	Disease2	20/8/2023
David	011111110567	18	Male	0111111111	Disease2	20/8/2023
Sakura Imoto	071109191177	17	Female	01215552481	Disease2	11/10/2023
Sabrina	971010012234	26	Female	0126672318	Disease2	20/11/2023
Lim Ching Chong	031209151097	20	Male	01110952318	Disease3	19/10/2023
Chloe Lee	000321070045	23	Female	01719972345	Disease4	07/09/2023
joan lee	030917092345	20	Female	0121234567	Disease5	12/11/2023
	0111111131111	15	Male	01110123456	Fever	19/2/2023
Joseph	0111111131111	15	Male	01110123456	Fever	19/2/2023













#### What you want to edit?

Enter the name of the patient to edit: Davie Patient Found: Patient Details: Name: Davie IC: 111011130111 Age: 13 Gender: Male Contact Number: 0191234567 Disease: Diarrhea Diagnosed Date: 19/2/2023 What would you like to edit? [1] Name [2] IC [3] Age [4] Gender [5] Contact Number [6] Disease [7] Diagnosed Date Option: 1 Enter new name: Davie wong Patient info updated successfully! Press any key to continue . . .













