CSC 540 - DATABASE MANAGEMENT CONCEPTS & SYSTEMS
FALL 2019 PROJECT 1 - DATABASE APPLICATION DESIGN &
IMPLEMENTATION
Medical Facility Performance Dashboard Application
Application Flow

Application Menu

Below is the application menu for the Medical Facility system. We expect you to follow this program flow strictly. You must validate all user input and display appropriate error messages whenever necessary prompting the user to re-enter his input, even if it may not be explicitly stated.

Start Pages

Home

Display	Menu	Input	Output
Display the menu	1. Sign In 2. Sign Up (Patient) 3. Demo Queries 4. Exit	Enter Choice (1-4)	Go to the appropriate page. If exit is chosen, terminate the program.

SignIn

Display	Menu	Input	Output

Ask user to input the following details in the order shown below, followed by the menu. Provide a list of facilities to choose from.
 	
   A. **Facility id**
   B. **Last name**
   C. **Date of Birth**
   D. **City of address**
   E. **Patient with options yes/no**
	1. Sign-In
	2. Go Back
		Enter Choice (1-2)	**If the user chooses 1, validate credentials and bring them to [patient routing](#) page.**
			
			Print "Sign in Incorrect" for invalid credentials and ask to enter again.
			
			If the user chooses 2, go back to the [Home](#) page

Sign Up

Display	Menu	Input	Output

Ask user to input the following details in the order shown below, followed by the menu.
 	
  A. **First Last Name**
  B. **Date of Birth**
  C. **Address**
  D. **Phone Number**
	1. Sign Up
	
	2. Go Back
		Take input from user about the new patient.
		
		After entering details A-D, choose option 1-2 from the menu
			If the user chooses 1, save his entered information into database creating an account for this customer and go to SignIn page after displaying an appropriate message.
			
			If the user chooses 2, go back to the [Home](#) page

Patient pages

Patient Routing

Display	Menu	Input	Output
Display the Menu	1. **Check-in** 2. **Check-out acknowledgement** 3. **Go back**	**Enter choice (1-3)**	**1. Display a list of facilities for patients to choose, if patient is already checked in in that facility prompt then error message. Otherwise go to check-in page** **2. After medical staff generate report for patients visits, patient need to acknowledge it to complete checkout process**

Patient Check-in

Display	Menu	Input	Output
Display the symptoms	1. **Pain** 2. **Fever** 3. **...** **N-1. Other** **N. Done**	**Enter choice (1-N)**	**Display the meta symptom page for a symptom chosen, if the user selects other, allow them to provide a description for the symptom. For N,validate,record time, logout and**

			return to the **Home** page.

Patient symptom meta

Display	Menu	Input	Output
Display the menu	1. **Body part** 2. **Duration** 3. **Reoccurring?** 4. **Severity** 5. **Cause (Incident)**	**Choose 1-4 to enter a new value depending on symptoms, some symptoms have implied value so ignore those, once everything has been filled return to check-in page**	**Prompt the user to enter or choose value or go back to patient check-in page once everything has been filled**

Medical Staff pages

Staff Menu

Display	Menu	Input	Output
Display the menu	1. **Checked-in patient list** 2. **Treated patient list** 3. **Add symptoms** 4. **Add severity scale** 5. **Add assessment rule** 6. **Go back**	**Choose 1-6**	1. **Staff process patient page** 2. **Staff check-out patient page** **3 - 6 Take user to appropriate page**

Staff process patient

Display	Menu	Input	Output
Display the list of patients who finished self check in\n\nDisplay the menu	1. Enter Vitals\n2. Treat patient\n3. Go back	Choose patient number from list then Choose 1-3	Check if user is medical staff, if not prompt user and go back.\n\nIf the user chooses 1 go to enter vital page\n\nIf the user chooses 2, check if user could treat body part associated to patient symptoms, if yes, move patient to treated list, else prompt for inadequate privilege.

Staff enter vital

Display	Menu	Input	Output

Ask user to input the following details in the order shown below, followed by the menu. A. Temperature B. Systolic blood pressure C. Diastolic blood pressure	1. Record 2. Go back	Enter choice (1-2)	1. Record time, trigger assessment, display priority and go back 2. Go back

Add symptoms

Display	Menu	Input	Output
Ask user to input the following details in the order shown below, followed by the menu. A. Symptom name B. Symptom body part (leave blank if not exclusively associated to one body part) C. Symptom Severity (display type of severity to choose, leave blank for no severity associated)	1. Record 2. Go Back	Enter Choice (1-2)	Go back to Staff Menu

Add Severity Scale

Display	Menu	Input	Output
Display the menu	There's another level for this scale There's no more levels Go back	If user chose, prompt the user to enter this severity level, for example "bad", then loop back to the menu until user chose 2.	Go back to Staff Menu

Add assessment rule

Display	Menu	Input	Output
Similar to patient check in: Display the symptoms	1. Pain 2. Fever 3. ... N. Select priority	Enter Choice (1-N)	1-(N-1). Goto severity scale N. Goto priority
Display the Severity scale associated with symptom		Severity scale	Prompt the user to enter or choose value then go back above
Display the menu	1. High 2. Normal 3. Quarantine		Go back to Staff menu

Treated Patient list

Display	Menu	Input	Output

Display the list of Treated patients Display the menu	1. Check out 2. Go back	Ask the user to choose the patient from the displayed list. Enter Choice (1-2)	If user chooses 1, redirect to Staff-patient checkout, for option 2 go to Staff menu

Checkout process: (Srilatha and Kiran)

Staff - Patient Report

Display	Menu	Input	Output
Display the menu	1. Discharge Status 2. Referral Status 3. Treatment 4. Negative Experience 5. Go back 6. Submit	Enter choice 1-6	Redirect to appropriate page. If 3 is selected then allow user to input treatment description. Save the text and stay on the same page. If user chooses 6. Submit then go to Staff Patient report confirmation.

Discharge status

Display	Menu	Input	Output
Display the menu	1. Successful treatment 2. Deceased 3. Referred 4. Go back	Enter choice 1-4	Redirect to Staff-Patient Report.

Referral status

Display	Menu	Input	Output

Display the menu	1. Facility id 2. Referrer id 3. Add reason 4. Go back	Enter choice 1-4	If user chooses 1 or 2, ask user to input value. If user chooses 3 then go to referral reason page. Otherwise go to Staff-Patient Report page.

Referral Reason

Display	Menu	Input	Output
Display the reason code, the name of the service and description(1/2/3)	1. Reason 2. Go back	Enter choice	If user chooses 1, then record users reason code. If user chooses 2 go back to Referral status page

Negative Experience

Display	Menu	Input	Output
Display the menu with code.	1. Negative experience Code 2. Go back	Enter choice 1-2	If 1 is selected allow user to choose the code and add description else redirect to the Staff-Patient Report

Staff - Patient Report Confirmation

Display	Menu	Input	Output

| Display the report and ask the user for confirmation | 1. Confirm
2. Go back | Enter choice 1 or 2 | If user chooses 1 go to Staff Menu page otherwise go to Staff - Patient Report. |

Patient Checkout Acknowledgement

Display	Menu	Input	Output
Display the report that is filled by the staff	1. Yes 2. No 3. Go Back	Enter choice 1-3	If user selects 1 or 3 redirect to Patient routing page. If this is 2 then user must enter a reason and then redirect to patient routing page.