



**UUM**  
Universiti Utara Malaysia

**SESSION 2023/2024 SEMESTER 1 (A231)**

**STID3024 SYSTEM ANALYSIS AND DESIGN**

**PROJECT TITLE:**

**AUDITORY PROCESSING DISORDER (APD) CONSULTATION SYSTEM**

**PROBLEM-BASED LEARNING 1 (PBL1)**

**PREPARED BY: GROUP 8**

**LIST OF GROUP MEMBERS:**

NG PEI NYUK	277209
LAU JIA MIN	279620
ABDUL RAHMAN BIN BASIRUN	282065



**College of Arts & Sciences**

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	1 / 37

# LIST OF REQUIREMENTS

## AUDITORY PROCESSING DISORDER (APD) CONSULTATION SYSTEM



### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	2 / 37

The table below lists the functional and non-functional requirements of the Auditory Processing Disorder Consultation System (APDCS). In the priority column, the following short hands are used:

- M – mandatory requirements (something the system must do)
- D – desirable requirements (something the system preferably should do)
- O – optional requirements (something the system may do)

#### A. FUNCTIONAL REQUIREMENTS

No.	Requirement ID	Requirement Description	Priority
	<b>APDCS_01</b>	<b>Register</b>	
1.	APDCS_01_01	If parents do not have an account, parents must register one.	M
2.	APDCS_01_02	Parents must provide their personal information: <ol style="list-style-type: none"> <li>1. Child's name</li> <li>2. Child's date of Birth</li> <li>3. Child's IC Number</li> <li>4. Phone Number</li> <li>5. Email Address</li> <li>6. Password</li> </ol> Confirm Password	M
3.	APDCS_01_03	If the password and confirm password are unequal, the parents need to re-enter the Password again.	M
4.	APDCS_01_04	Upon registration, the parents must verify the registration at the respective email registered.	M
	<b>APDCS_02</b>	<b>Login</b>	
5.	APDCS_02_01	If users enter an existing account, the system should verify it and enter the parents' main page.	M



#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	3 / 37

6.	APDCS_02_02	If users enter an admin account, the system should verify it and enter the admin page.	M
7.	APDCS_02_03	If the user forgets their password, the system should allow the user to reset their password via email.	M
8.	APDCS_02_04	System should check the user account type to make sure the main page is displayed correctly.	M
9.	APDCS_02_05	System should check the users write the verification code correctly.	M
	<b>APDCS_03</b>	<b>Homepage</b>	
10.	APDCS_03_01	System should display a few options to let the parents make a decision.	D
11.	APDCS_03_02	If parents choose to search for an appointment date, the system should show available dates to let them choose on their own.	O
12.	APDCS_03_03	Parents have to fill in their details in order to search for an appointment.	M
13.	APDCS_03_04	System will display the search details about the appointment.	M
14.	APDCS_03_05	System should show the appointment details or cancel the appointment when the parents choose to display the appointment page.	O
15.	APDCS_03_06	System should display the appointment details and the consultancy result.	D
16.	APDCS_03_07	System should show parents about the latest consultancy result.	D
17.	APDCS_03_08	After users obtain the result, they can choose either to download the file or directly print it out.	O



College of Arts &amp; Sciences

## DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	4 / 37

18.	APDCS_03_09	If the result is not available, the system should show an error message which is "No Result".	D
19.	APDCS_03_10	System should allow parents to book the appointment by filling in the required details.	D
20.	APDCS_03_11	System will send notification to the parents via email and SMS after the booking is successful.	D
21.	APDCS_03_12	System should allow the parents to access the cancel appointment page.	D
22.	APDCS_03_13	If users choose to cancel or make changes to the appointment date, the system will prompt them to contact the centre.	M
	<b>APDCS_04</b>	<b>Manage Page</b>	
23.	APDCS_04_01	System should allow the admin account holder to enter the admin page.	D
24.	APDCS_04_02	If users enter an admin account, the system should verify it and enter the admin page.	M
25.	APDCS_04_03	System should allow the admin to do the option to update the patient's details, such as add, view, update appointments and delete appointments.	O
26.	APDCS_04_04	System should display the add appointment page when the admin selected to access the add page .	D
27.	APDCS_04_05	System should allow the admin to input the required information to book the appointment.	D
28.	APDCS_04_06	System should allow the admin to save the appointment.	D
29.	APDCS_04_07	System should allow the admin to search the appointment date in the view appointment page.	D



College of Arts &amp; Sciences

## DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	5 / 37

30.	APDCS_04_08	System should display the required details that are related to the date for the view appointment page.	D
31.	APDCS_04_09	System should display the update appointment page.	D
32.	APDCS_04_10	System should allow the admin to select the date to update.	D
33.	APDCS_04_11	System should allow the admin to fill in the patient's details to update.	D
34.	APDCS_04_12	System should allow the admin to save the details.	D
35.	APDCS_04_13	System should display the success dialog to let the admin know that the updating process is successful.	D
36.	APDCS_04_14	System should display the error dialog to let the admin know that the updating process is unsuccessful.	D
37.	APDCS_04_15	The system should display the page that allows the admin to update consultation results.	D
38.	APDCS_04_16	System should allow the admin to submit the file to update the consultation result.	D
39.	APDCS_04_17	If the upload is not successful, the system should display the error dialog to let the admin know that the updating process is unsuccessful.	D
40.	APDCS_04_18	System should allow the admin to delete an appointment.	D
41.	APDCS_04_19	System should display a message when the appointment is not found.	D
42.	APDCS_04_20	System should send notification to the admin after delete.	D



College of Arts &amp; Sciences

## DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	6 / 37

**B. NON-FUNCTIONAL REQUIREMENTS**

No.	Requirement ID	Requirement Description	Priority
	<b>APDCS_06</b>	<b>Security</b>	
1.	APDCS_06_01	Keep users and admins' data from leaking	M
2.	APDCS_06_02	Prevent hacking from outside.	M
3.	APDCS_06_03	Client privacy should be prioritised by the system	M
4.	APDCS_06_04	Every change that is related to the account should be verified by the owner of the account.	M
	<b>APDCS_07</b>	<b>Maintainability</b>	
5.	APDCS_07_01	The system should be easy to maintain and keep updated on time.	M
	<b>APDCS_08</b>	<b>Accessibility</b>	
6.	APDCS_08_01	The system should not be crashed more than once per 1 hour.	M
	<b>APDCS_09</b>	<b>Usability</b>	
7.	APDCS_09_01	The system should be available for accessing by the users.	M
	<b>APDCS_10</b>	<b>Performance</b>	
8.	APDCS_10_01	The system should respond quickly for the users to let the users have a good experience in using the system.	M
9.	APDCS_10_02	The system should have a clean and simple system interface.	M



College of Arts &amp; Sciences

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	7 / 37

## USE CASE DIAGRAM

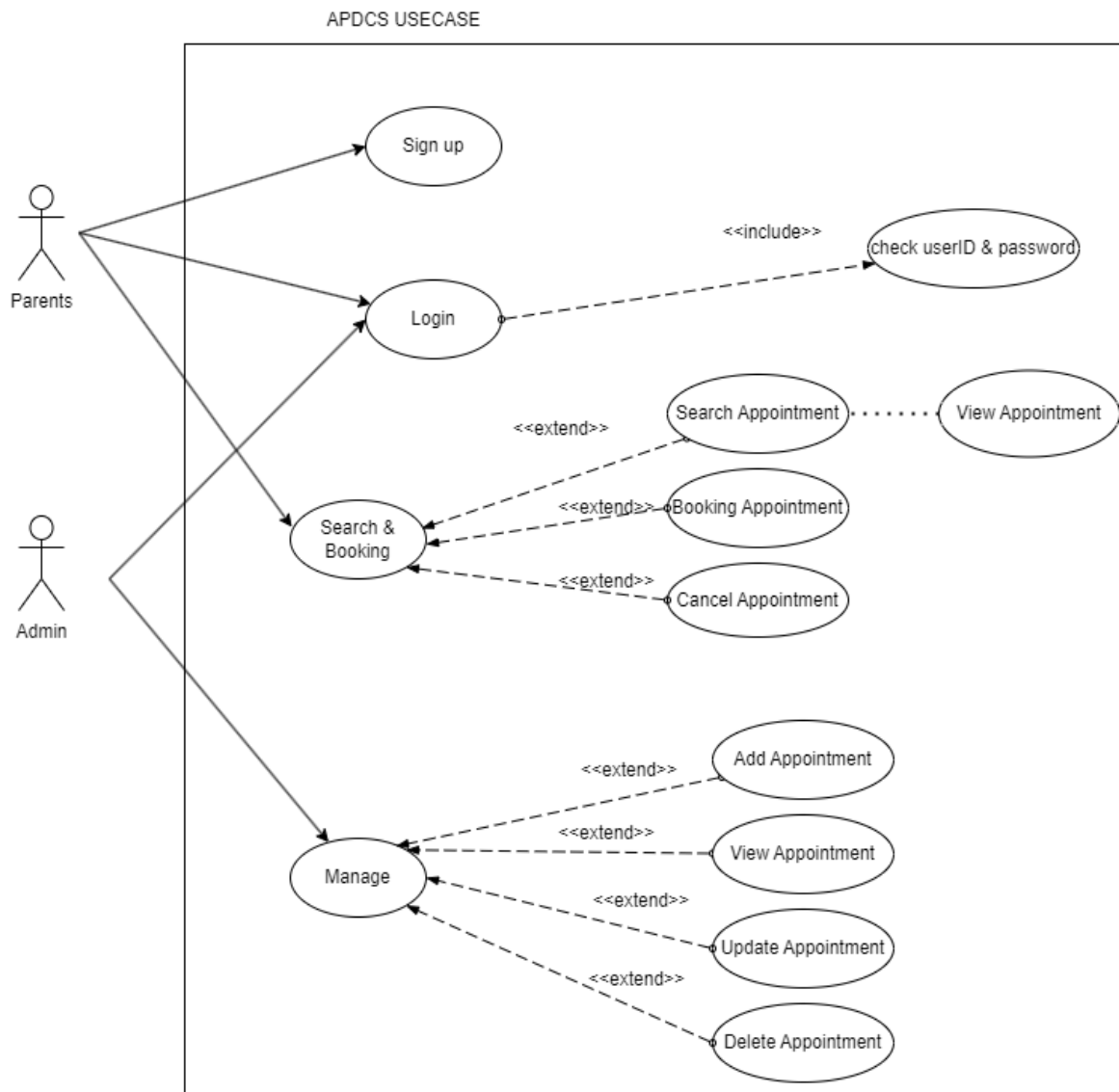
# AUDITORY PROCESSING DISORDER (APD) CONSULTATION SYSTEM



### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	8 / 37





## DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	9 / 37

## USE CASE SPECIFICATION

# AUDITORY PROCESSING DISORDER (APD) CONSULTATION SYSTEM



### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	10 / 37

## 4.0 USECASE SPECIFICATION

### 4.1 USECASE: Sign up (APDCS\_01)



#### 4.1.1 BRIEF DESCRIPTION

The following use case is initiated by users either parents or admin by registering new accounts using identification number as well as a password.

#### 4.1.2 PRE-CONDITIONS

The users must fill in their personal information within the given space to register.

#### 4.1.3 CHARACTERISTICS OF ACTIVATION

Event Driven (on parent's and admin's demand)

#### 4.1.4 FLOW OF EVENTS

##### 4.1.4.1 Basic Flow (APDCS\_01\_02, APDCS\_01\_02)

- i. The use case begins when new parents and admins enter the system.
- ii. The system shows or displays the main page.
- iii. The user (parents / admins) selects the 'Register' button.



College of Arts & Sciences

#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	11 / 37

- iv. The system displays registration columns to be filled out.
- v. The users must provide valid personal information (i.e. Name, Date of Birth, IC Number, Phone Number, Email Address, Password and Confirm Password)
- vi. The system verifies the personal information.
- vii. The user must verify their registration via verification code sent through email or phone number (**A1: Send Verification Email**).
- viii. The system will check and verify if the registered account exists (**E1: Account exists**).

#### 4.1.4.2 ALTERNATIVE FLOW

##### A1: Send Verification Email (APDCS\_01\_04)

- i. The system should send an verification email and let the user click the URL to make sure the email is not a dummy email.

#### 4.1.4.3 EXCEPTIONAL FLOW

##### E1: Account is exist

- i. If the IC exists in the database, the system should display a dialog that shows that the account exists and back to the registration page.

#### 4.1.5 POST-CONDITIONS

The system will display the main page and information page to the users.



College of Arts & Sciences

#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	12 / 37

**4.1.6 RULE(S)**

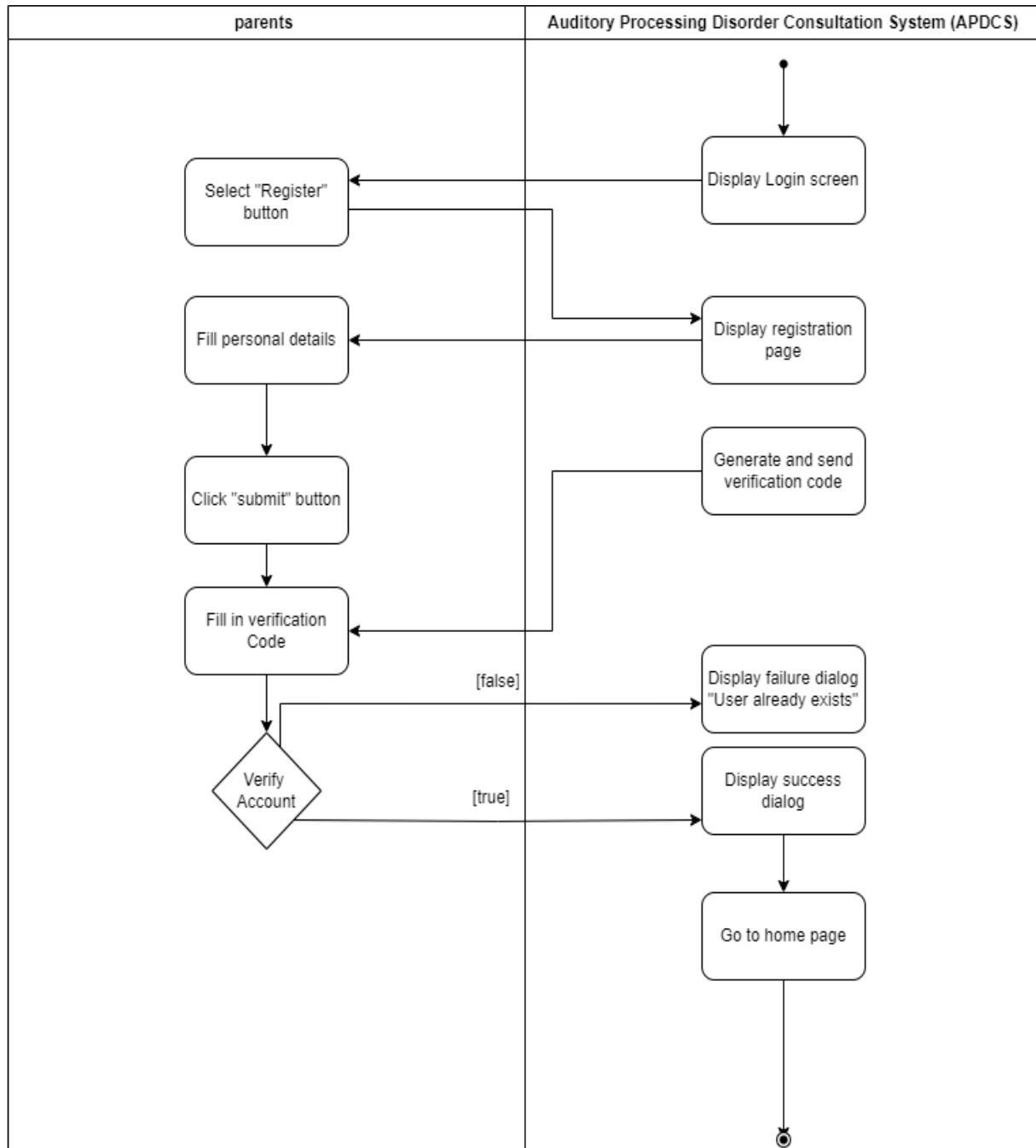
- a. Users must enter valid personal information in the registration columns.
- b. The account must be registered using an IC Number and parent/admin that has not yet been registered.

**4.1.7 CONSTRAIN(S)**

Not Applicable

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	13 / 37

**4.1.8 ACTIVITY DIAGRAM****DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	14 / 37

## 4.1.9 SKETCH

AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM  
(APDC S)

ID  
Password

Forget Password?  
Register

AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM  
(APDC S)

REGISTER

Name

Date Of Birth

IC Number

Phone Number

Email Address

Password

Confirm Password

VERIFICATION CODE

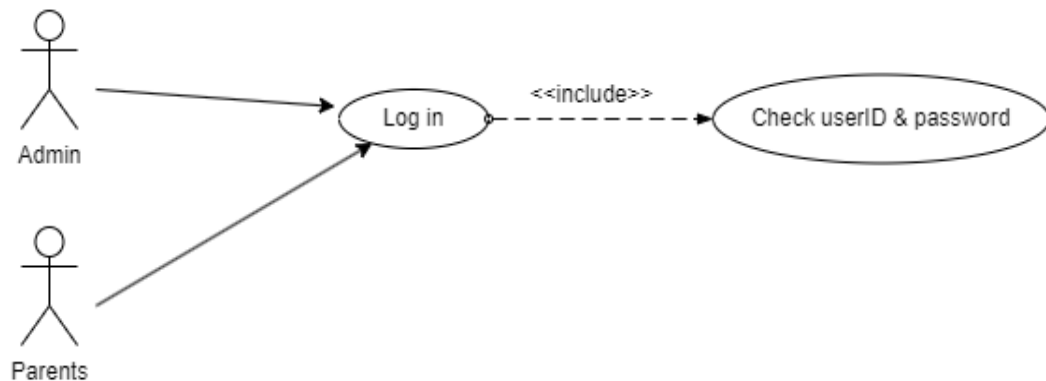
VERIFY

SUBMIT



## DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	15 / 37

**4.2 USECASE: Login (APDCS\_02)****4.2.1 BRIEF DESCRIPTION**

The following use case is used by parents and admin. Users can log onto the page by entering their registered identification number and password.

**4.2.2 PRE-CONDITION**

User's IC Number and Password of parents or admins must be registered.

**4.2.3 CHARACTERISTICS OF ACTIVATION**

Event Driven (parents and admins demand)

**4.2.4 FLOW OF EVENTS****4.2.4.1 Basic Flow (APDCS\_02\_01, APDCS\_02\_02, APDCS\_02\_04)**

College of Arts & Sciences

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	16 / 37



- i. The use case starts by the user entering the correct IC Number and password and clicking the “Login” button.
- ii. Parents or admins can press the Forget Password (**A1: Forget Password**) button if they forget their password.
- iii. The systems verify the user’s information and password.
- iv. If the user’s information and password is valid, system will check the logged in user account type (**A2: Parent**) (**A3:Admin**)
- v. If the user enters the incorrect password or IC Number, an error (**E1: Invalid Information**) will occur.

#### 4.2.4.2 Alternative Flow

##### A1: Forget Password (APDCS\_02\_03)

- i. Users should click on the “Forgot Password” link on the bottom of the ‘Login’ page if they forgot their password.
- ii. The system will show columns for email or phone numbers that users use to register before and click the “Reset Password” button.
- iii. A temporary password will be sent via email or phone number of the registered users.
- iv. Users will login using that temporary password and can reset their personal password afterwards.



#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	17 / 37

**A2: Parents Account**

- i. System should check the database to check the existence of the account..
- li. If the account is saved in the table “parents”, the system should display the homepage.

**A3: Admin Account**

- i. System should check the database to check the existence of the account.
- li. If the account is saved in the table “admin”, the system should display the manage page.

**4.2.4.3 Exceptional Flow****E1: Invalid Credentials or Password (APDCS\_02\_05)**

- i. The system will display an error message which is “Invalid Credentials or Password” whenever users key in the incorrect registered information.
- ii. Users will have to go back to the main page and try again with correct credentials.

**4.2.5 POST-CONDITIONS**

The system will display the home page. The system will display “Parents” or “Admin” based on the registered account.



College of Arts &amp; Sciences

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	18 / 37

**4.2.6 RULE(S)**

- a. The user password and credentials must be correct.
- b. The email and phone number they registered with must be the same when users want to reset their password.

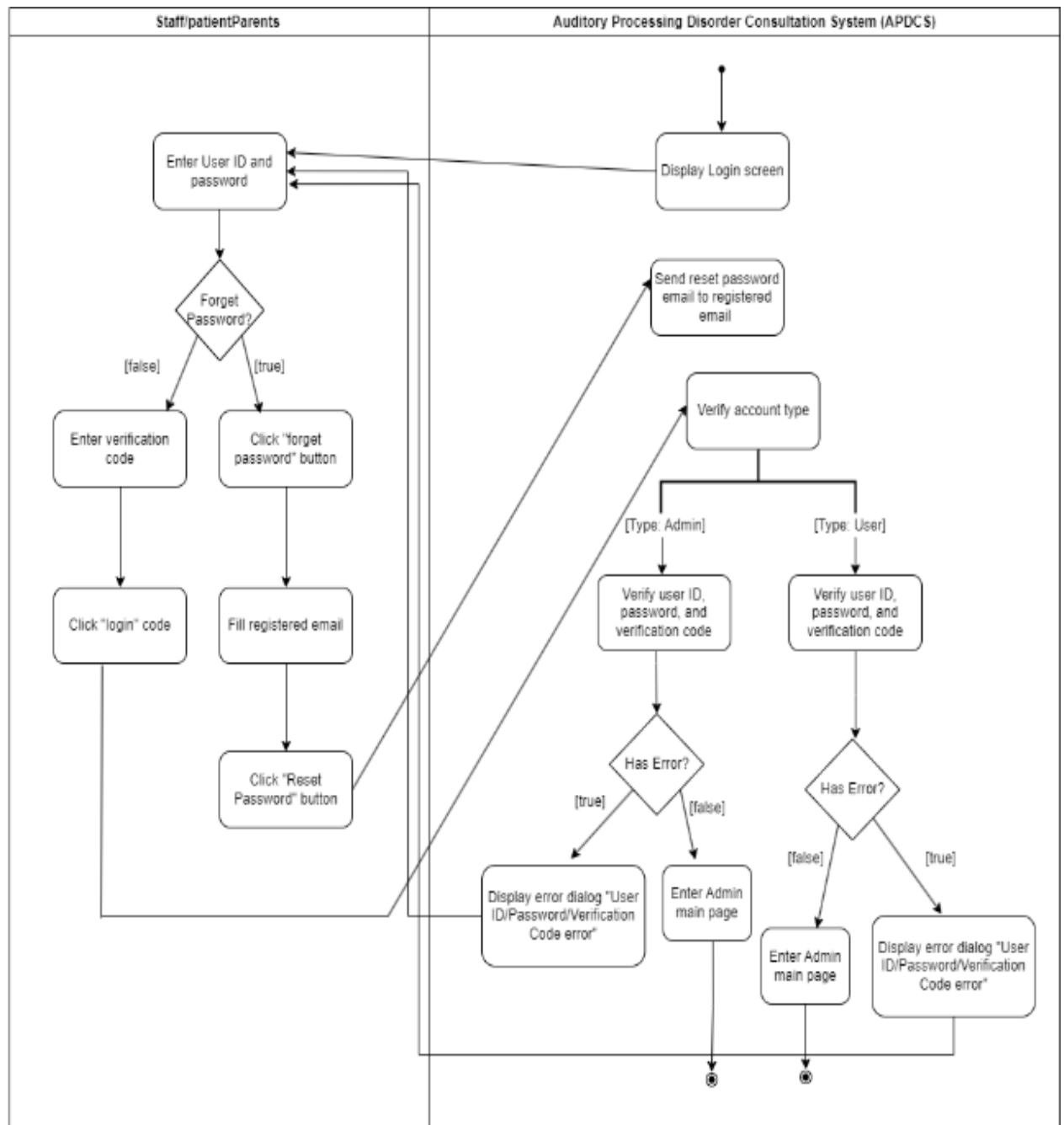
**4.2.7 CONSTRAINT(S)**

Not applicable

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	19 / 37

## 4.2.8 ACTIVITY DIAGRAM



## DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	20 / 37

**4.2.9 SKETCH**

AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM  
(APDC S)

ID  
Password

Forget Password?  
Register

AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM  
(APDC S)

Reset Password

Please enter the following information:

ID

Email Or Phone Number

Temporary Password

Reset

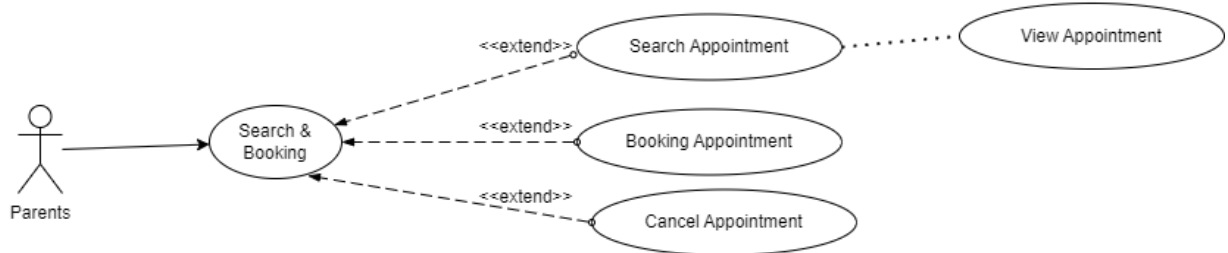


College of Arts &amp; Sciences

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	21 / 37

### 4.3 USECASE: Homepage(APDCS\_03)



#### 4.3.1 BRIEF DESCRIPTION

This use case is accessible by parents to refer to the appointments that had been done. This use case will enable parents to search and make booking for the appointment.

#### 4.3.2 PRE-CONDITION

The parents must be logged into the Auditory Processing Disorder Consultation System (APDCS).

#### 4.3.3 CHARACTERISTIC OF ACTIVATION

Event Driven (parents' demand)

#### 4.3.4 FLOW OF EVENTS

##### 4.3.4.1 Basic Flow (APDCS\_03\_01, APDCS\_03\_02)

- i. The system will check the user's account type, either as admin or parents.



College of Arts & Sciences

#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	22 / 37

ii. If the account is registered as parents, the system will display the appointment list that was made by the parents.

iii. Parents can search for the booking that had been booked in the centre (**A1: Search Appointment**) (**A2: View Appointment**) (**E1 - Result not found**), book a new appointment (**A3: Book Appointment**) and cancel appointment (**A4: Cancel Appointment**).

#### 4.3.4.2 Alternative Flow

**A1: Search Appointment (APDCS\_03\_03, APDCS\_03\_04, APDCS\_03\_05, APDCS\_03\_06, APDCS\_03\_07, APDCS\_03\_08)**

- i. The system will display the interface for the searching page.
- ii. Parents can search for the appointment that had been done physically in the centre.
- iii. The system will display the interface for the details for the appointment.
- iv. Parents can check the details of the appointment and the consultation result.
- v. System should allow parents to view or download results by generating a file for the parents.

**A2: Book Appointment (APDCS\_03\_10, APDCS\_03\_11)**

- i. The system will display the interface for the booking page.
- ii. Parents are allowed to make new appointments by using the system by filling in the required information for the booking purposes (i.e: patient name, age, patient ic. No, date, time).
- iii. After filling all of the required information, parents must press the submit



College of Arts & Sciences

#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	23 / 37

- button in order to save the booking details.
- iv. System should create and save the booking into the system.
- v. System should pop-up a successful dialog after the process ends.
- vi. System should also send a notification to the users via email and SMS.

#### **A3: Cancel Appointment (APDCS\_03\_12, APDCS\_03\_13)**

- i. The parents can cancel their appointments on the “View Appointment” menu.
- ii. System should display the contact for the parents to contact them for cancellation.

#### **4.3.4.2 Exceptional Flow**

#### **E1: Result not found (APDCS\_03\_09)**

- i. System will show an error message which is “No Result” if the result is not available.
- ii. System should lead them for the previous action.

#### **4.3.5 POST-CONDITIONS**

The system will update the latest date availability when there is addition or deletion of the appointment date from parents and admins.



College of Arts & Sciences

#### **DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	24 / 37



**4.3.6 RULE(S)**

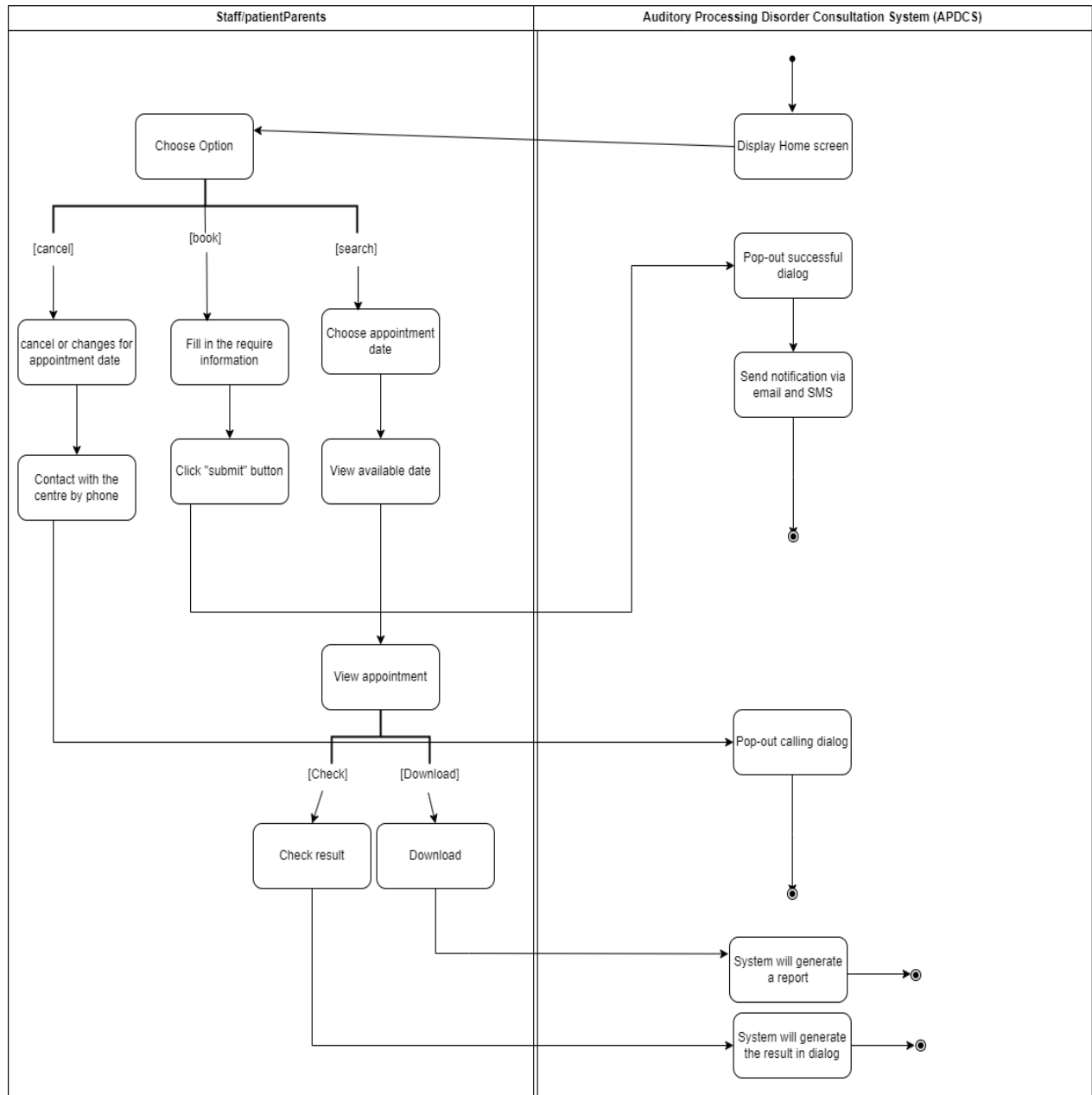
Admin cannot add any appointment to a date that has already been booked, unless there is an appointment that is cancelled on that date.

**4.3.7 CONSTRAINT(S)**

The parents can only search, book and cancel one appointment at one time.

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	25 / 37

**4.3.8 ACTIVITY DIAGRAM****DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	26 / 37

**4.3.9 SKETCH**

**AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM (APDC S)**

Home

Calendar

Appointments

Slot	Time	Date

Book Search Cancel

**AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM (APDC S)**

Search:

Appointments

Slots	Time	Date

view

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	27 / 37

**AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM  
(APDC S)**

Appointment

Slot	Time	Date
Dr Kimantura - Audiologist diagnose, manage, and treat hearing, balance, or ear problems	2.30p.m - 4.30p.m	24 July 2023

[Cancel Appointment](#)

[view](#)

**AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM  
(APDC S)**

Book Appointments

Name	<input type="text"/>
Age	<input type="text"/>
IC Number	<input type="text"/>
Date	<input type="text"/>
Time	<input type="text"/>

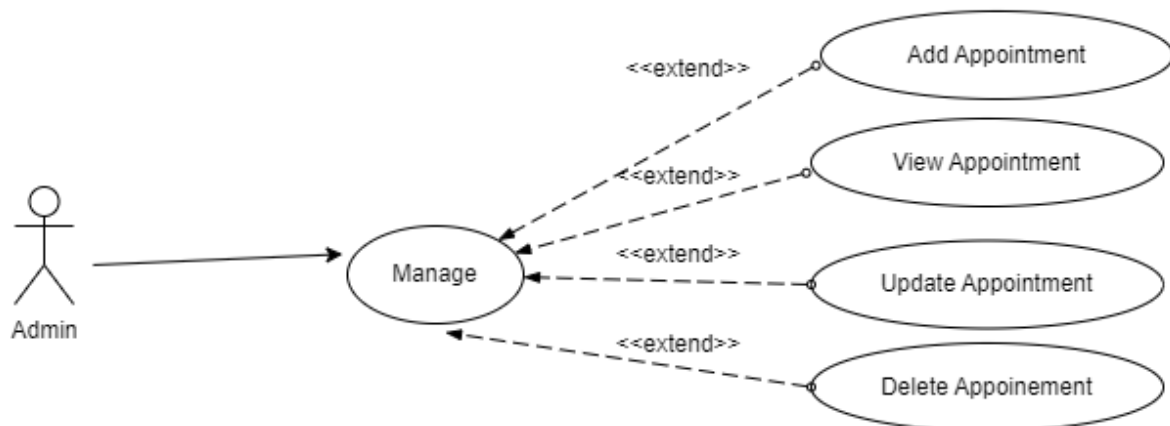
Date for Available  
Appointments:

[Submit](#)

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	28 / 37

#### 4.4 USECASE: Manage Page (APDCS\_04)



##### 4.4.1 BRIEF DESCRIPTION

This use case is initiated by admin and parents to manage appointments. This use case will enable you to add, edit and delete parents appointments. The use case also will enable parents to check and cancel their appointment.

##### 4.4.2 PRE-CONDITION

The admin and parents must be logged into this Auditory Processing Disorder Consultation System (APDCS).

##### 4.4.3 CHARACTERISTIC OF ACTIVATION

Event Driven (on admin and parents' demand)



College of Arts & Sciences

#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	29 / 37

#### 4.4.4 FLOW OF EVENTS

##### 4.4.4.1 Basic Flow (APDCS\_04\_01, APDCS\_04\_02, APDCS\_04\_03)

- i. The system will check account type, whether admin or parents
- ii. If it is an admin account type, the system will display the “Manage Appointment” table.
- iii. If it is a parents account type, the system will display the “Your Appointment” table.
- iv. Admin can add (**A1: Add Appointment**), edit (**A2: Update Appointment**) (**E1: Update error**), view (**A3: View Appointment**) and delete (**A4: Delete Client Appointment**) (**E3: No Record Found**) parent appointments.
- v. Admin can search for parents data by key-in patient ic. no in the search column on the top of the Manage Appointment Table.

##### 4.3.4.2 Alternative Flow

##### A1: Add appointment (APDCS\_04\_04, APDCS\_04\_05, APDCS\_04\_06)

- i. The system will display the calendar on the “Add appointment” menu.
- ii. Staff can create a new appointment for the patient by clicking a date from the calendar.
- iii. The system will display a page for admin to key in appointment’s information.
- iv. Admin will need to key in the appointment information for the booking purpose (i.e: patient name, age, patient ic. No, date, time).



College of Arts & Sciences

#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	30 / 37

- v. After filling in all the information, the admin can click on the save button to save it into the system.
- vi. The system will save the appointment information in the Manage Appointment Table.
- vii. The system will pop up a message showing “Appointment Successfully Added” and will notify parents about the appointment date by email.

#### **A2: View appointment (APDCS\_04\_07, APDCS\_04\_08)**

- i. The system will display the calendar on the “View Appointment” menu.
- ii. Admin can search the appointment details by input the appointment date.
- iii. System should display the details about the appointment.

#### **A3: Update Appointment (APDCS\_04\_09, APDCS\_04\_10, APDCS\_04\_11, APDCS\_04\_12, APDCS\_04\_13, APDCS\_04\_15, APDCS\_04\_16)**

- i. Admin can edit appointment information by pressing the Edit Appointment icon.
- ii. Admin will need to key in the Patient’s IC no to search an appointment.
- iii. The system will display a page for admin to key in appointment information (i.e: patient name, age, patient ic. No, date, time).
- iv. Admin can update the appointment result in the update interface by uploading a file to the system for the result (**E2: Upload Failed**)
- v. The system will save the appointment in the Manage Appointment Table.
- vi. System must notify parents by email about the updated appointment.
- vii. The system will pop up a message showing "Appointment Updated Successfully".



#### **DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	31 / 37

**A4: Delete Appointment (APDCS\_04\_18, APDCS\_04\_20)**

- i. Admin will need to key in the Patient's IC no to search an appointment.
- ii. The system will display the details of the appointment information the deleting purpose (i.e: patient name, age, patient ic. No, date, time).
- iii. Admin may delete the appointment information by clicking the delete button.
- iv. The system will delete the appointment information in the Manage Appointment Table.
- v. System must notify parents about deleted appointments by email.
- vi. The system will pop up a message showing "Appointment Deleted Successfully".

**4.3.4.2 Exceptional Flow****E1: Update Error (APDCS\_04\_14)**

- i. System should display the error dialog show that the updating process is unsuccessful.
- ii. System should allow the admin to return to the fill in action.

**E2: Upload Failed (APDCS\_04\_17)**

- i. System should display an error dialog to show that the uploading process is unsuccessful
- ii. The system should allow admin to return to the fill in action.

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	32 / 37



**E3: No Record Found (APDCS\_04\_19)**

- i. System should display the error dialog to let the admin know that no appointment has been recorded in the system.
- ii. System should allow the admin to return to the fill in action.

**4.4.5 POST-CONDITIONS**

The system will update the latest date availability when there is addition or deletion of the appointment date from parents and admins.

**4.4.6 RULE(S)**

Admin cannot add any appointment to a date that has already been booked, unless there is an appointment that is cancelled on that date.

**4.4.7 CONSTRAINT(S)**

The admin can only add, view and delete one patient appointment at one time.

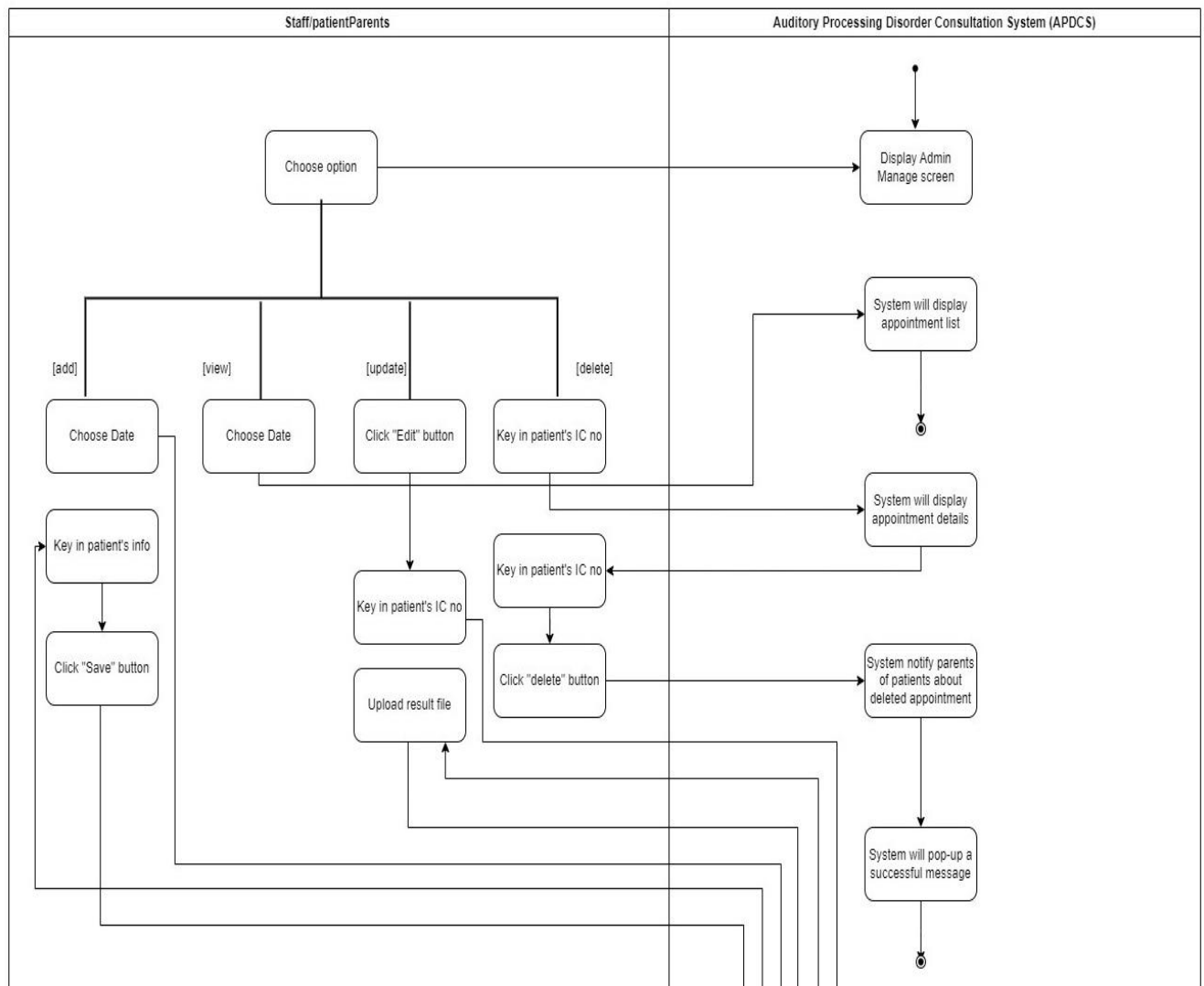


College of Arts & Sciences

**DOCUMENT IDENTIFICATION**

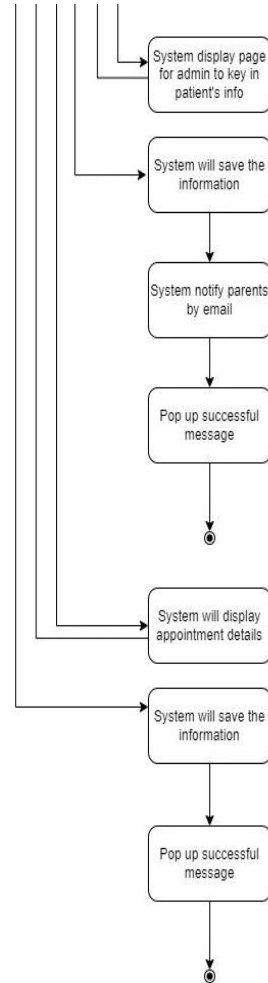
SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	33 / 37

#### 4.4.8 ACTIVITY DIAGRAM



#### DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	34 / 37

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	35 / 37

## 4.4.9 SKETCH

**AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM (APDC S)**

Home

Select date:

October 2014

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

**Pending Appointments**

Slot	Time	Date

Manage Appointment

**AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM (APDC S)**

MANAGE

**Booked Appointments** | view | add | edit | delete

Slots	Time	Date



## DOCUMENT IDENTIFICATION

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	36 / 37

### AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM (APDC S)

Add Appointment

Select Date:

< October 2014 >

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11

Name

Age

IC Number

Date

Time

Add

### AUDITORY PROCESSING DISORDER CONSULTATION SYSTEM

View ×

#### Appointment Details

Patient Information	Time	Date	dd   edit   delete

**DOCUMENT IDENTIFICATION**

SYSTEM NAME	DESCRIPTION NO.	VERSION	PAGE
TUITION CENTRE MANAGEMENT SYSTEM		1.0	37 / 37