Dental Clinic System

CHAPTER:1 INTRODUCTION.

1.1 Background:

- Presently the clinic functionality are done manually. That is, if the patient wants to consult a doctor he/she can visit there till his chance called.
- An appointments are distributed directly.
- The work in the clinic is done manually, paper works and registers are maintained for the patients.
- The main disadvantage is time consuming.
- Limitation of existing system is, if patient loses their receipt, difficulties to find out the patient token assign.
- To defect this limitation we do computer based web application.

1.2 Objectives:

- The aim of this system is to improve the management of the dental clinic and reduce the human efforts.
- The main objective of the project on Dental Clinic System is to manage the details of Dental Clinic, Doctor, Patients, Tests, Appointments.
- The objective of this system is to ensure the workflow in the clinic will be more systematic and organize.
- It tracks all the details about the patient, Tests and Appointments.

1.3 Purpose:

- Our purpose at creating this application is that it will automate the process in Dental Clinic.
- Using this it is possible to keep the track of a database for clinic like information about the patient and appointment schedule, personal records, previous medical records, treatment records, prescription, case reports.
- This project is being created for collecting, managing, saving, and retrieval of medical information for the patients, and for creating reports for the patients.

<u>1.4:</u> Scope:

- The scope of this project is patient and dentist/consultant management system of dental clinic and has to fulfill all their needs such as registering the patients and capturing their data.
- It may help in collecting perfect management details. In a very short period of time, the collection will be obvious, simple and sensible.
- It also helps in all current works related to Dental Clinic System.
- The level of accuracy in the proposed system will be higher. All the operation would be done correctly and it ensures that whatever information coming from the center is accurate.
- It will reduce the redundancy like no information is repeated in the storage. This would assure the economic use of storage space and consistency in the data stored.
- The retrieval of any type of information would be available whenever it is required.
- It will also reduce the cost of collecting the management and the collection procedure will go on smoothly.

<u>1.5</u> Applicability:

- Dental Clinic System is an automated system designed and developed precisely for the smooth and efficient conduct of the procedure followed in **<u>Dental Clinics</u>**.

- It is provisioned with logins for user under profile as a patient for the Registration.

- The application can be made accessible to the outside world on the internet through the website.

- Appointment booking and payment gateway can be enabled directly to the patients with necessary notifications to the employees involved, along with the doctor.

- This system can used by the Doctors in their Dental Clinic.

CHAPTER:2 SURVEY TECHNOLOGIES

- Form:

1. Have you ever visited dental clinic before?
   a. Yes   b. No

2. Have you faced any Dental Health Problem?
   a. Yes   b. No

3. How many times have you visited a Dental Clinic?
   a. Once   b. Twice   c. More than 3 times   d. Never

4. What would you prefer if you have any dental problem?
   a. Home remedies   b. Visiting a Dentist

5. When you book an offline appointment, you have to wait at the dentist office for your turn. What do you feel?
   a. It is Time Consuming   b. It is not Time Consuming.

6. Have you ever placed an appointment related to dental issue online?
   a. Yes   b. No

7. Would you like to have a consultation online through chats/calls instead of meeting a doctor in a clinic?
   a. Yes   b. Maybe   c. No

8. What do you think about booking an appointment through a registration form online on a website is time saving?
   a. Yes   b. Maybe   c. No

9. Would you trust on the data/description provided on a particular website?
   a. Yes   b. Maybe   c. No   d. Not at all

10. What type of payment method would you use after a Treatment?
    a. Internet Banking   b. Cash Payment   c. E-Wallet

11. Would you believe on the feedbacks of the user on a particular website/system?
   a. Yes   b. Maybe   c. No

- Responses:

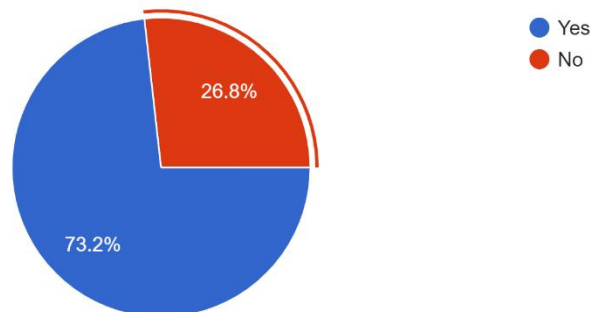| #	Timestamp	Username	1. Have you ever visited a Dental Clinic before?	2. Have you faced any Dental Health Problem?	3. How many times have you visited a Dental Clinic?	4. What would you prefer if you have any dental problem?	5. Have you ever placed an appointment	6. Would you like to have a consultation	7. What do you think about booking an appointment	8. Would you trust on the data/description provided on a	9. What type of payment method would you use after a Treatment?	10. Would you believe on the feedbacks of the user on a particular
2	2020/11/25	dhruvthapa66@gma	No	Yes	Never.	Visiting a Dentist.	No	Yes	Yes	Maybe	Internet Banking	Yes
3	2020/11/25	5inghhapee13@gma	No	Yes	Never.	Visiting a Dentist.	No	Maybe	Yes	Maybe	Cash Payment	Yes
4	2020/11/25	manjushapawar658	No	No	Never.	Visiting a Dentist.	Yes	Yes	Yes	Yes	E-wallet.	Yes
5	2020/11/25	m.rajak1212@gmail	Yes	Yes	Twice	Visiting a Dentist.	No	No	No	No	Cash Payment	No
6	2020/11/25	palabhi1791@gmail	Yes	No	Once	Visiting a Dentist.	No	No	Yes	Maybe	Cash Payment	No
7	2020/11/25	gaureshkoltharkar@	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	Yes	Maybe	Cash Payment	Yes
8	2020/11/25	apurvacheulkar17@	No	No	Never.	Visiting a Dentist.	No	Yes	Yes	Maybe	Cash Payment	Yes
9	2020/11/25	chavandipti20@gma	Yes	No	Once	Home Remedies	No	Yes	Yes	Yes	Internet Banking	Yes
10	2020/11/25	shubhamsawantt11	Yes	Yes	Once	Visiting a Dentist.	No	No	No	Maybe	Internet Banking	Yes
11	2020/11/25	riddhigohil04@gmai	No	No	Never.	Visiting a Dentist.	No	Maybe	Yes	Yes	Cash Payment	Maybe
12	2020/11/25	sagarjoshi91297@g	Yes	No	More than 3 times	Visiting a Dentist.	Yes	No	Yes	No	E-wallet.	Yes
13	2020/11/25	devalghatge@gmail	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	Maybe	Yes	Cash Payment	Yes
14	2020/11/25	manasviparmar2001	Yes	Yes	Once	Visiting a Dentist.	No	No	No	Maybe	Cash Payment	Maybe
15	2020/11/25	shrutimhaske25@gr	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Yes	Yes	Maybe	Internet Banking	Yes
16	2020/11/25	vaibhavi.bhabal200	No	Yes	Never.	Home Remedies	No	Yes	Yes	Maybe	Internet Banking	Maybe
17	2020/11/25	divyadaka22@gmail	No	No	Never.	Home Remedies	No	Yes	Yes	Maybe	Internet Banking	Maybe
18	2020/11/25	bachchalwarrohit@	Yes	Yes	Twice	Visiting a Dentist.	No	Maybe	Yes	Yes	Cash Payment	Yes
19	2020/11/25	sinuvirkar@gmail.cc	Yes	No	Once	Visiting a Dentist.	No	Maybe	Maybe	Yes	Cash Payment	No
20	2020/11/25	nehapraja1705@gm	Yes	Yes	Twice	Visiting a Dentist.	Yes	Maybe	Yes	Maybe	Cash Payment	Yes
21	2020/11/25	lakshikad19@gmail.	Yes	Yes	Twice	Visiting a Dentist.	No	Maybe	Yes	Maybe	Cash Payment	Yes
22	2020/11/25	shikhagohil96@gma	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	Yes	Maybe	Internet Banking	Maybe
23	2020/11/25	shuvrabag2411@gm	No	No	Never.	Visiting a Dentist.	No	Maybe	Yes	No	Cash Payment	No
24	2020/11/25	lovyy17@gmail.com	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	Yes	Maybe	Cash Payment	Yes
25	2020/11/25	basvarajpujari607@	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Yes	Yes	Yes	Internet Banking	Yes
26	2020/11/25	mandarpooja@gma	No	No	Once	Visiting a Dentist.	No	Maybe	Yes	Not at all.	Internet Banking	Maybe
27	2020/11/25	hritikdhanawade3@	Yes	Yes	Once	Home Remedies	Yes	Maybe	Maybe	Yes	Cash Payment	Yes
28	2020/11/25	yogeshmandavkar1	Yes	Yes	More than 3 times	Visiting a Dentist.	Yes	Maybe	Yes	No	Cash Payment	Maybe
29	2020/11/25	madhavkarmalkar0	No	No	Never.	Home Remedies	No	Maybe	Maybe	Maybe	Internet Banking	Maybe
30	2020/11/25	sanchitaband110@	No	No	Never.	Visiting a Dentist.	Yes	Maybe	Yes	Maybe	Cash Payment	Yes
31	2020/11/25	deepak773893@gm	Yes	Yes	Twice	Visiting a Dentist.	No	Maybe	Yes	Maybe	Internet Banking	Maybe
32	2020/11/25	cravisingh64@gmail	No	No	Never.	Visiting a Dentist.	No	Maybe	Yes	Maybe	Internet Banking	Yes
33	2020/11/25	yashkarwarkar@gm	Yes	Yes	Once	Home Remedies	No	Yes	Yes	Yes	E-wallet.	Maybe
34	2020/11/25	ps1996438@gmail.c	Yes	Yes	More than 3 times	Home Remedies	No	Yes	Yes	Yes	Internet Banking	Maybe
35	2020/11/25	pankajmandve30@g	Yes	No	Once	Visiting a Dentist.	No	No	Yes	Not at all.	Internet Banking	Maybe
36	2020/11/25	tanvigurav017@gma	No	No	Never.	Home Remedies	No	Maybe	Yes	Not at all.	Cash Payment	No
37	2020/11/26	rahul132000@gmail	Yes	Yes	Twice	Visiting a Dentist.	No	Yes	Maybe	No	Cash Payment	No
38	2020/11/26	jayasoni9211@gmai	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	No	Maybe	E-wallet.	No
39	2020/11/26	guptasandip0000@g	Yes	Yes	Twice	Visiting a Dentist.	No	Yes	Yes	Yes	E-wallet.	Yes
40	2020/11/26	shubhammehra817	Yes	Yes	More than 3 times	Visiting a Dentist.	Yes	No	Maybe	Not at all.	Cash Payment	Yes

| 41 | 2020/11/26 | nileshgorule8730@g | Yes | No | Once | Visiting a Dentist. | No | Yes | Yes | No | E-wallet. | Yes |
42	2020/11/26	omkarmotiwale24@	No	No	Never.	Visiting a Dentist.	No	Maybe	Maybe	Not at all.	Cash Payment	Maybe
43	2020/11/26	mithaliganesh@gma	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	Yes	Maybe	E-wallet.	Yes
44	2020/11/26	guptasapana2012@	Yes	No	Twice	Visiting a Dentist.	No	Maybe	Yes	No	E-wallet.	Maybe
45	2020/11/26	shantanubirmole@g	Yes	No	Never.	Visiting a Dentist.	No	Yes	No	Yes	Internet Banking	Yes
46	2020/11/26	simonsmonteiro@g	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	Yes	No	E-wallet.	Yes
47	2020/11/26	kajalbarkade0828@	Yes	Yes	More than 3 times	Visiting a Dentist.	Yes	Maybe	Yes	Not at all.	Cash Payment	Yes
48	2020/11/26	rosyvisionhairnspa@	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Maybe	Yes	No	Cash Payment	Maybe
49	2020/11/26	rockingtejas2001@g	No	No	Never.	Visiting a Dentist.	No	No	Yes	No	Cash Payment	Maybe
50	2020/11/26	adhishanaik2000@g	Yes	Yes	Twice	Visiting a Dentist.	No	Maybe	Yes	Maybe	Internet Banking	Maybe
51	2020/11/26	efeyaz@gmail.com	Yes	Yes	More than 3 times	Visiting a Dentist.	No	No	Yes	Maybe	Cash Payment	Yes
52	2020/11/26	shahbazkhn303@gn	Yes	Yes	Once	Visiting a Dentist.	No	Maybe	Maybe	Maybe	Cash Payment	No
53	2020/11/27	nimishasureshgohil(	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Yes	Yes	Maybe	Cash Payment	Maybe
54	2020/11/27	sushilgupta6534@gr	Yes	Yes	Twice	Visiting a Dentist.	No	Maybe	Yes	Not at all.	Cash Payment	Yes
55	2020/11/27	aartigupta8451@gn	Yes	Yes	More than 3 times	Visiting a Dentist.	No	Yes	Yes	No	Cash Payment	Yes
56	2020/11/28	gohil.harsh06@gma	Yes	Yes	Once	Visiting a Dentist.	No	Maybe	Yes	Maybe	E-wallet.	Maybe
57	2020/11/29	dr.shalinipal@yahoo	Yes	Yes	More than 3 times	Visiting a Dentist.	Yes	Yes	Yes	Yes	E-wallet.	Yes

- ## Statistics:

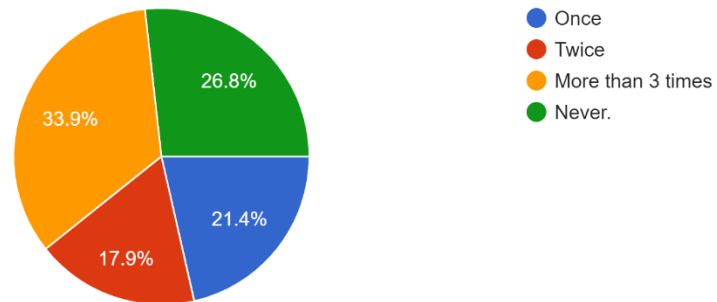## 1. Have you ever visited a Dental Clinic before?
56 responses

- Yes
- No

26.8%

73.2%

2. Have you faced any Dental Health Problem?
56 responses

- Yes
- No

35.7%

64.3%
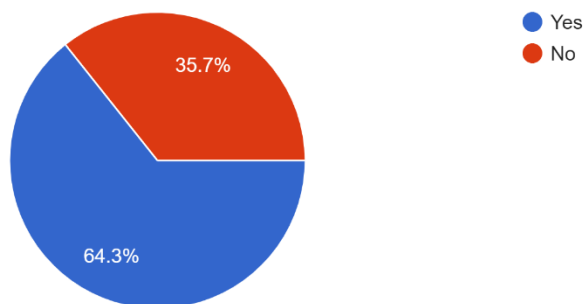
3. How many times have you visited a Dental Clinic?
56 responses

- Once
- Twice
- More than 3 times
- Never.

26.8%
33.9%
21.4%
17.9%

4. What would you prefer if you have any dental problem?
56 responses

- Home Remedies
- Visiting a Dentist.

85.7%
14.3%
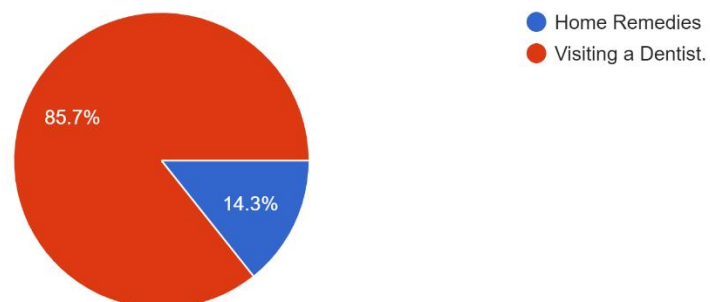
5. Have you ever placed an appointment related to dental issue online?

56 responses
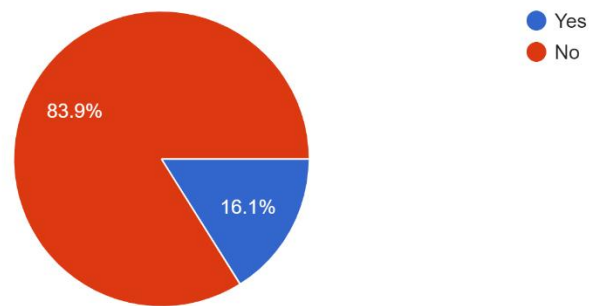
- Yes
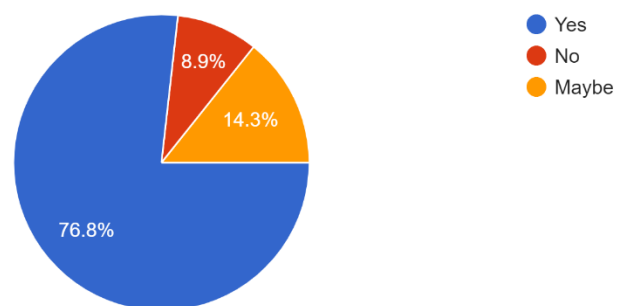- No

83.9%
16.1%

6. Would you like to have a consultation online through chats/calls instead of meeting a doctor in a clinic?

56 responses
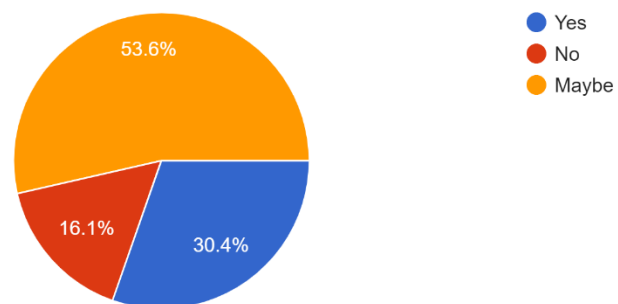
- Yes
- No
- Maybe

53.6%
16.1%
30.4%

7. What do you think about booking an appointment through a registration form online on a website is time saving?

56 responses

- Yes
- No
- Maybe

8.9%
14.3%
76.8%

8. Would you trust on the data/description provided on a particular website?

56 responses

- Yes
- No
- Maybe
- Not at all.

44.6%
12.5%
23.2%
19.6%
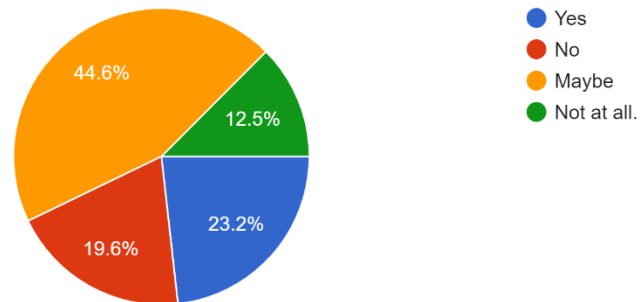
9. What type of payment method would you use after a Treatment?

56 responses

- Internet Banking
- Cash Payment
- E-wallet.

51.8%
19.6%
28.6%
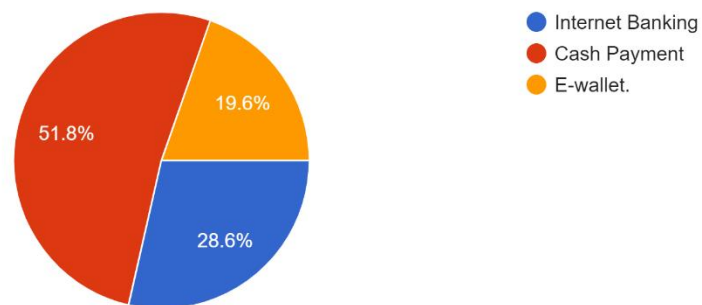
10. Would you believe on the feedbacks of the user on a particular website/system?

56 responses

- Yes
- No
- Maybe

33.9%
14.3%
51.8%
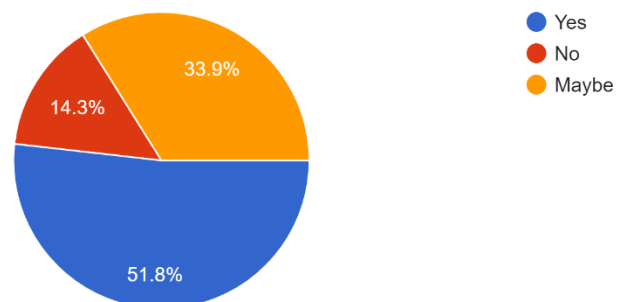
- Result:

  1) In the above survey, 56 people have responded the survey in which 73.2% respondents have visited the dental care and 26.8% respondents have never visited any dental clinic before.

  2) 64.3% of respondents have faced a dental health problem and around 35.7% respondents never faced any dental health problems.

  3) From 100% respondents, 21.4% of respondents have visited dental clinic only once, 17.9% of respondents visited twice and 33.9% more than thrice.

 4) In survey it is found that if anyone will suffer from dental problem, 85.7% respondents will visit dentist and 14.3% of respondents will use home remedies.

  5) 83.9% of respondents have never placed any appointments online and 16.1 of respondents have placed their appointments online.

  6) It is found that 30.4% would like to take consultation of a doctor on call/chats and 53.6% of respondents are not sure about taking a consultation through calls, while 16.3% of respondents would not like to take consultation through calls.

  7) 76.8% of respondents thinks that booking an appointment through appointment form is time saving, while 14.3% of respondents are not sure that it is time saving and rest of the respondents thinks that it is not time saving.

  8) It is found that 23.2 % of respondents will believe/trust on the data provided on particular website about their service and it is also found that 19.6% of responders won't trust while 12.5% won't trust at all and rest are not sure about the data.

  9) After visiting the dental clinic and getting done treatment, 51.8% of respondents willing to pay their bill by Cash, and 28.6% are willing to pay their Internet Baking and the remaining respondents are willing pay by E-Wallet.

  10) 51.8% of respondents will believe on the feedbacks on a particular website wile 14.3% will not believe and rest of the respondents are not sure to believe or not.

CHAPTER:3 REQUIREMENT AND ANALYSIS

ER DIAGRAM:
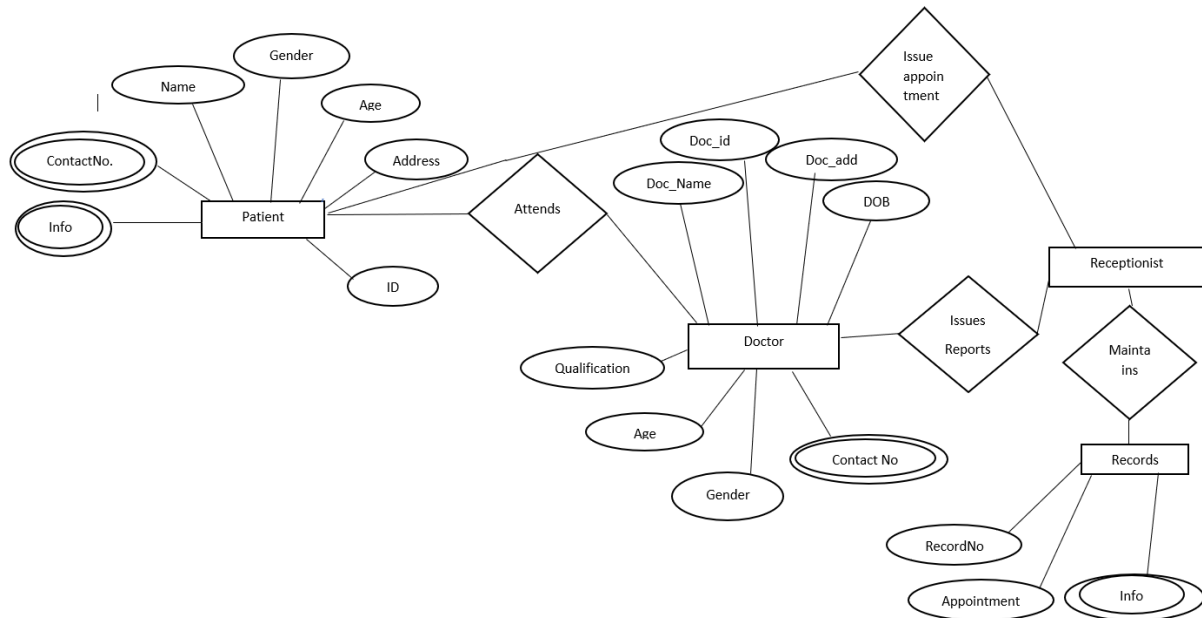
- An entity relationship model, also called as entity-relationship diagram, is a graphical representation of entities and their relationship to each other, typically used in computing in regard to the organization of data within databases or information systems.

- It shows the attributes in tables of the database.

- The entity-relationship data shows representation of database tables and the relations between patient, Doctor and the receptionist.

SEQUENCE DIAGRAM:
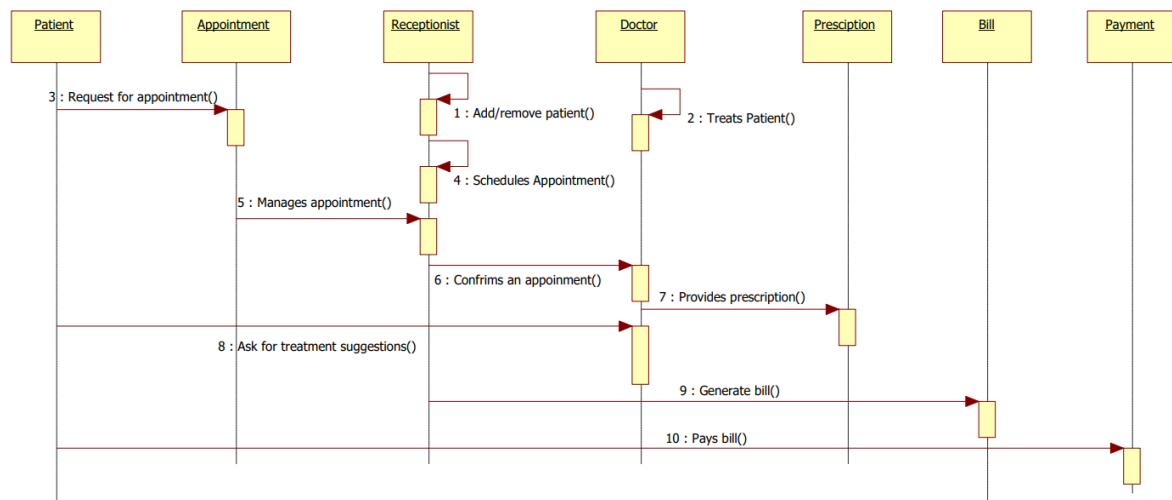
- The sequence diagram represents the flow of messages in the system and is also called as an event diagram.

- The sequence diagram shows the interaction login between the objects of clinic, appointments, patients, receptionists.

USE CASE DIAGRAM:
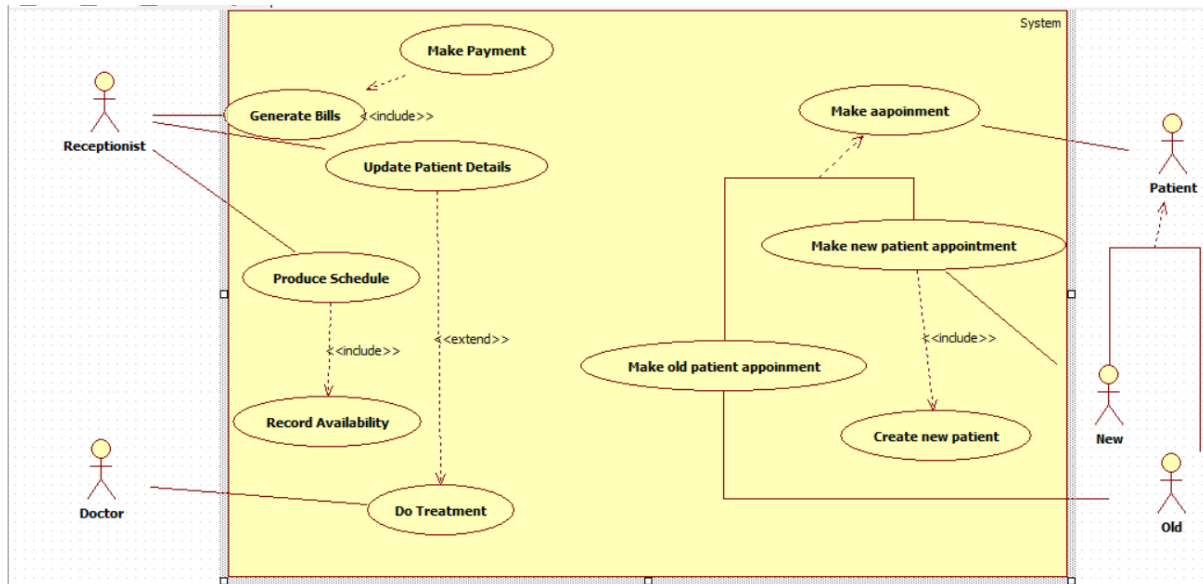
- A use case diagram is a graphic depiction of the interactions among the elements of a system.

- A use case is a methodology used in system analysis to identify, clarify, and organize system requirements.

- The actors, usually individuals involved with the system defined according to their roles.

- The patient can perform, make an appointment and the receptionist can perform, can generate bills, produce schedule and update patients.

ACTIVITY DIAGRAM:
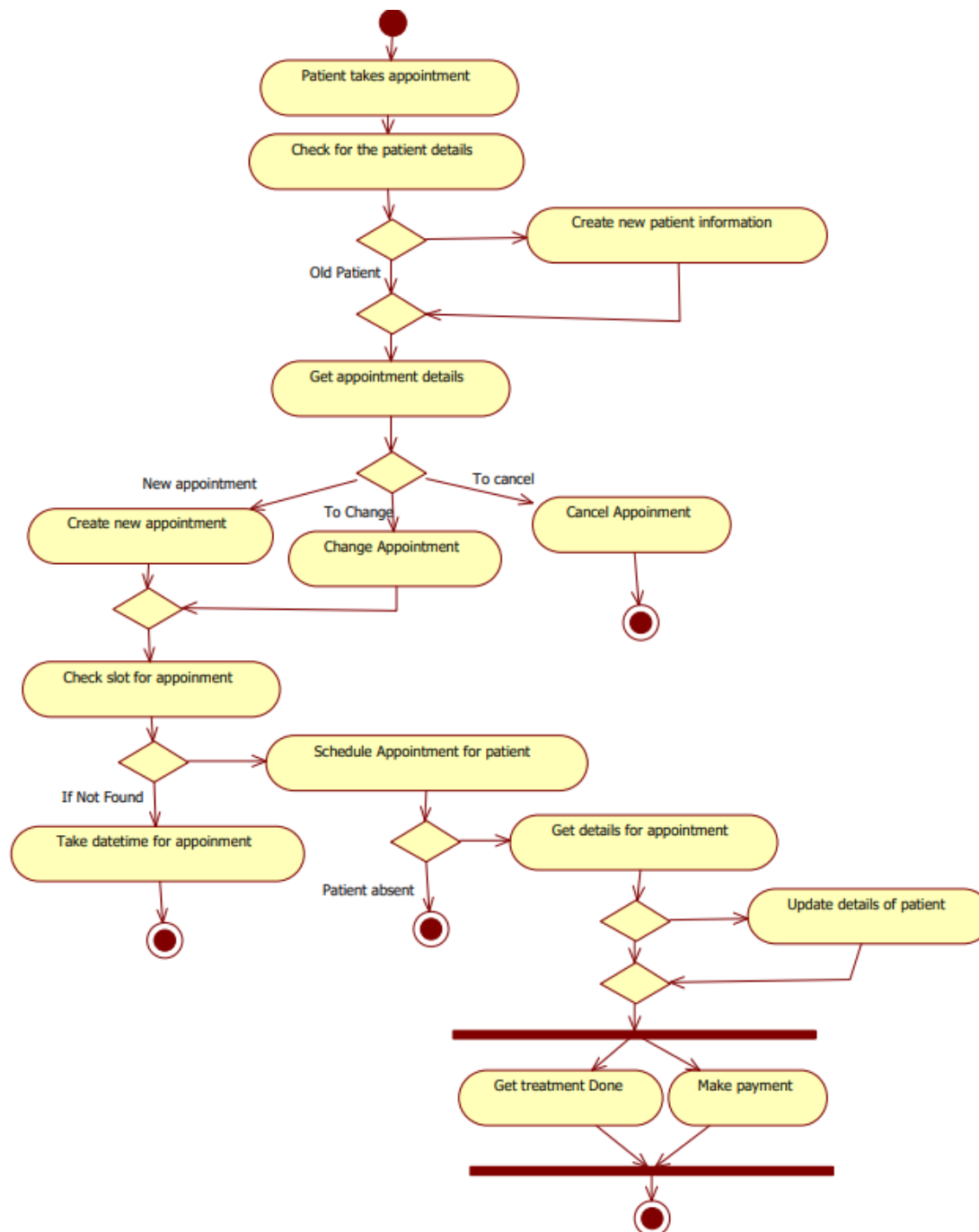
- An activity diagram is an UML diagram which describes the aspects of the system.

- It is basically a flowchart diagram which describes the flow from one activity to other activity. It is also described as an operation of the system.

- The flow in the diagram can be sequential, branched and concurrent.

- It shows the flows between the activity of patient, receptionist and the doctor.

- The activities are as follows: Patient activity, Doctors activity, Receptionist activity.

CLASS DIAGRAM:
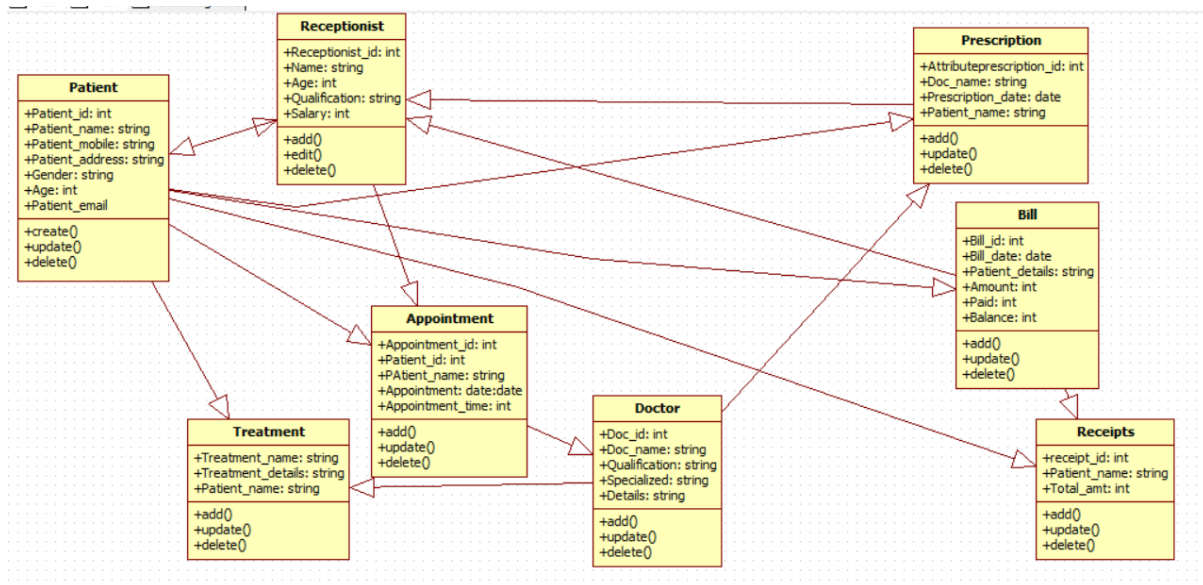
- A class diagram in the Unified Modelling Language (UML) by showing is a type of static structure diagram the describes the structure of a system showing the system's classes, their attributes, operations, and the relationship among objects.

- The main classes are Patient, Receptionist, Doctor, Treatment and Treatment.

DATA FLOW DIAGRAM:

- A data flow diagram is a graphical representation of the flow of data through an information system.

- It shows how information is input to and output from the system, the sources and destinations of that information, and where that information is stored

LEVEL 0:
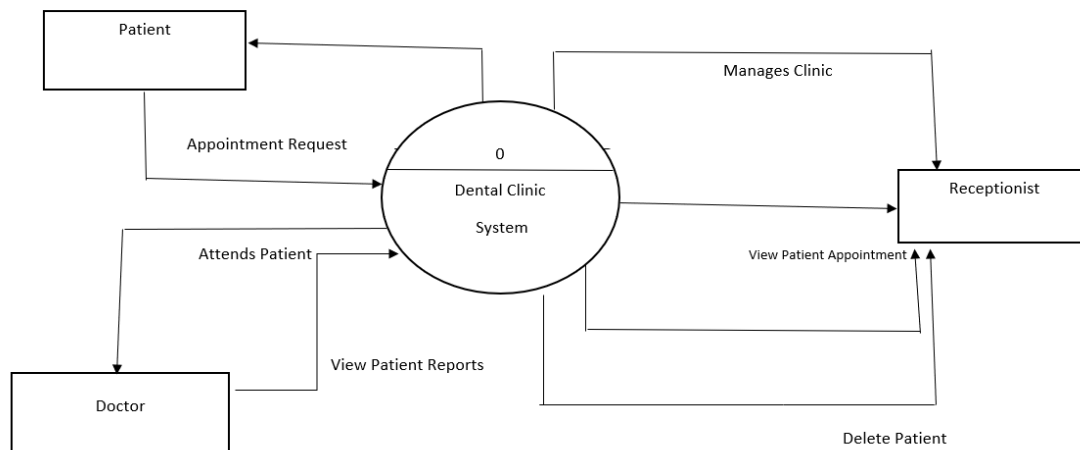
- Highest abstraction level DFD is known as level 0 DFD, which depicts the entire information system as one diagram concealing all the underlying details.

- It is the 0 level DFD of Dental Clinic System, where we have described about the high-level processes of the system.

- It represents the overview of a whole system that is being analysed or modelled.

LEVEL 1:
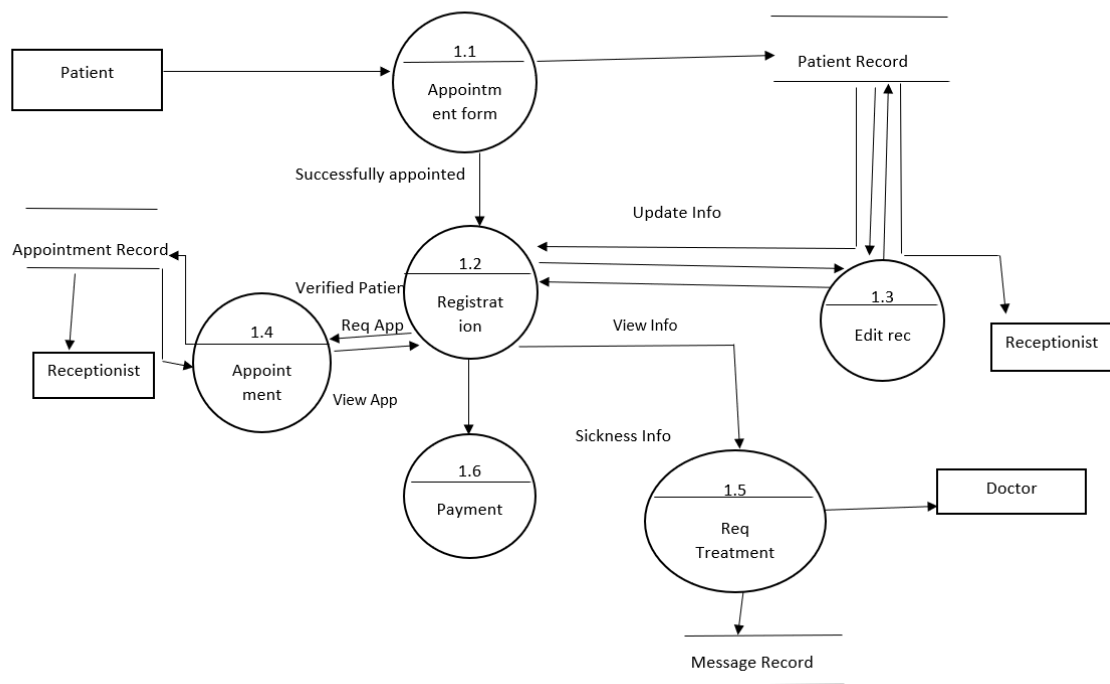
- The Level 0 DFD is broken down into more specific, Level 1 DFD. Level 1 DFD depicts basic modules in the system and the flow of data among various modules.

- Level 1 DFD also mentions the basic processes and sources of information.

- Level 1 DFD shows how the system is divided into subsystem, each of which deals with one or more of the data flows.

- It also shows the internal data stores of Appointment, Receptionist and the Doctor.

FLOWCHART:

```
                        ┌──────────┐
                        │   Home   │
                        └──────────┘
                              │
                              ▼
                        ┌──────────┐
                        │   Menu   │
                        └──────────┘
        ┌──────────┬──────┼──────┬──────────┬──────────┐
        ▼          │      │      │          ▼          │
┌──────────────┐   │      │      │    ┌──────────┐     │
│ Appointment  │   │      │      │    │ About Us │     │
│    form      │   │      │      │    └──────────┘     │
└──────────────┘   │      │      │          │          │
                   ▼      │      │          ▼          │
            ┌──────────┐  │      │   ┌──────────────┐  │
            │ Services │  │      │   │ Details Info │  │
            └──────────┘  │      │   │ About clinic │  │
                  │       │      │   └──────────────┘  │
                  ▼       │      │          ┌──────────────┐
        ┌───────────────┐ │      │          │ Testimonials │
        │Services Provided│ │    │          └──────────────┘
        └───────────────┘ │      │                 │
         ┌──────────────┐ │      │                 ▼
         │ Dental Tour  │ │      │        ┌──────────────┐
         └──────────────┘ │      │        │ Review of the│
                │         ▼      ▼        │   Patient    │
        ┌──────────────┐ ┌──────────┐ ┌──────────┐
        │Tourism how the││ Gallery  │ │Contact Us│
        │ Work is Done │ └──────────┘ └──────────┘
        └──────────────┘      │            │
                              ▼            ▼
                    ┌──────────────┐ ┌──────────────┐
                    │Images and videos││  Contacts   │
                    │About treatment │ │ Information  │
                    └──────────────┘ └──────────────┘
```
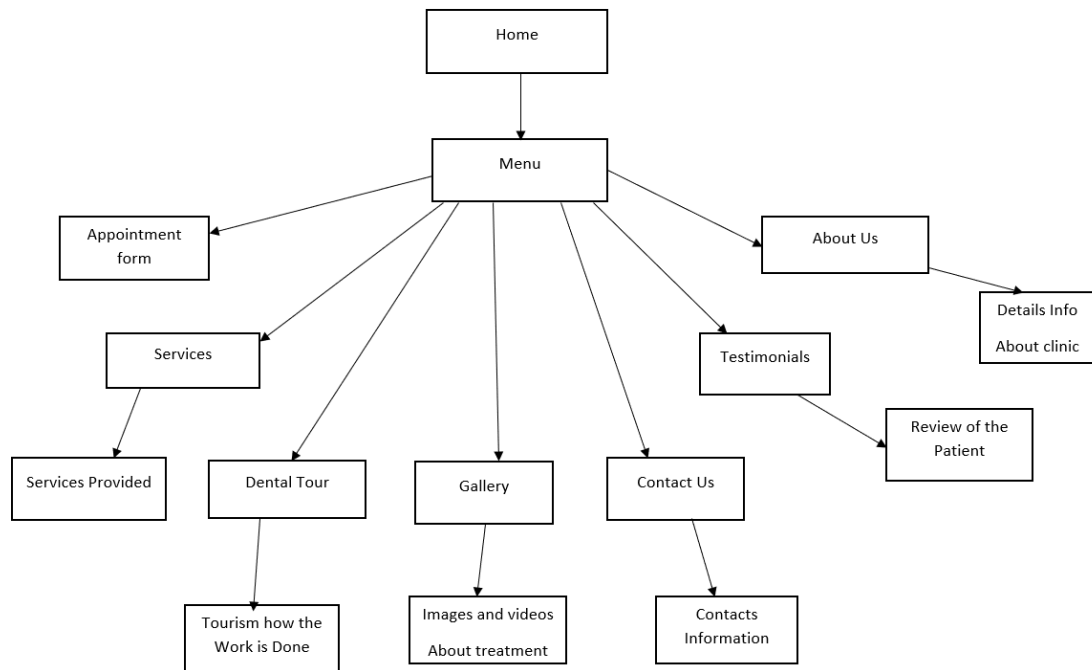
- It represents the flow of the system as a whole and also shows how the system will work.
- It shows the flow from the start to end.

CHAPTER:4 DESIGNING

Home Page

Dental Care   Image   Menu ≡

Introduction
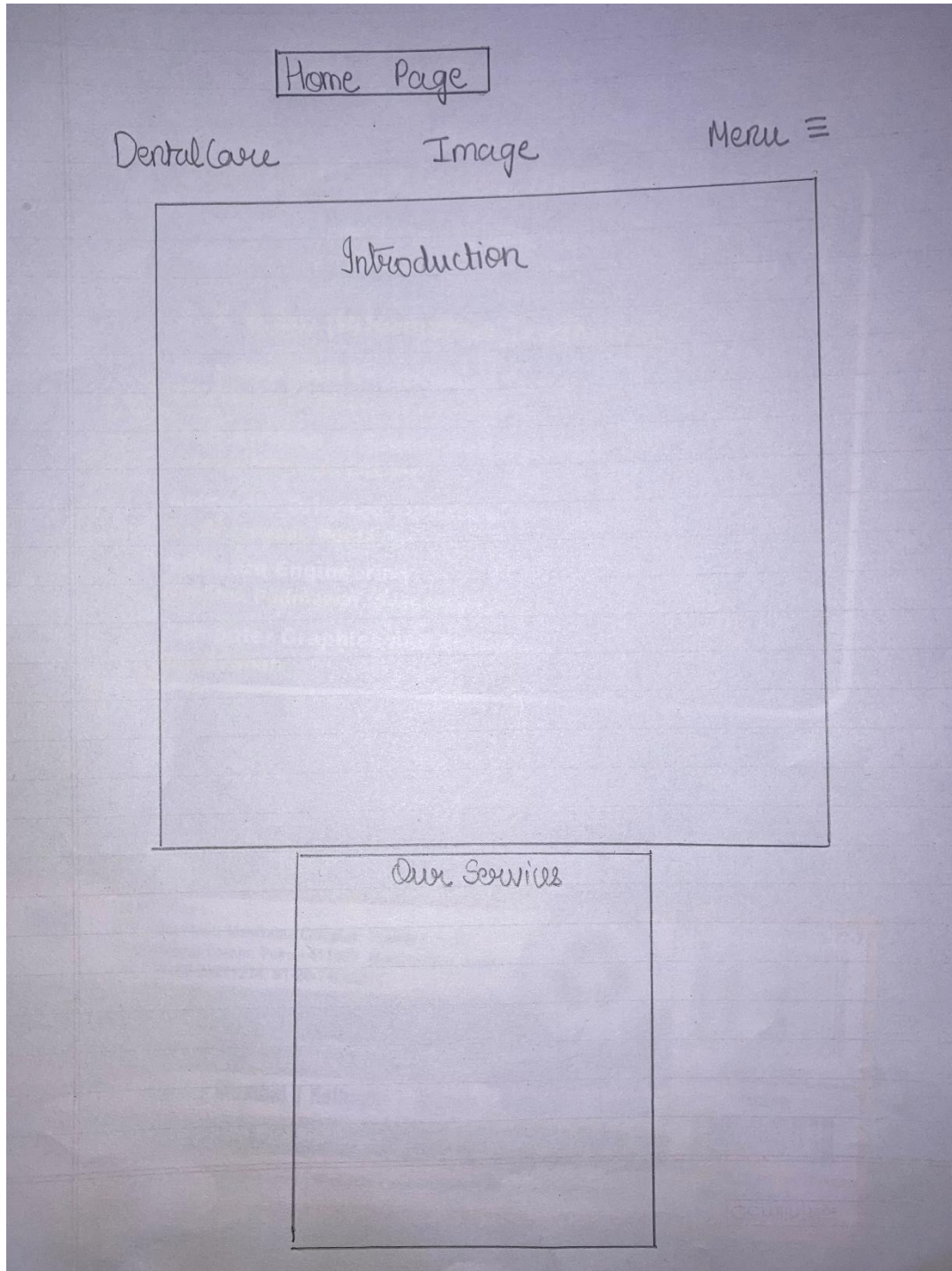
Our Services

| Home Page |

Dental Care　　　　Image　　　　Menu ≡

Introduction

| Home |
| Appointment Form |
| Services |
| Dental Tour |
| Gallery |
| About US |
| Testimonials |
| Contact US |

Our Services

Appointment Form

First Name : [   ]

Last Name : [   ]

Email Id : [   ]

Phone No : [   ]

Appointment Date : [🖩]

Time : [   ]

Message : [Type your Message here

]

Enter Captcha: Capcha Code:

[   ]   [Code   ]

[Submit   ]

Services

Routine Dental Checkups
Dental Fillings
Root Canal Treatment

Teeth Replacement
> Crowns And Bridges
> Dentures
> Dental Implants

Cosmetic Treatment
> Tooth Color Filling
> Smile Makeover
> Teeth Whitening
> Cosmetic/Porcelain Veneers
> Tooth Jewellery

Full Mouth Rehabilitation

Gum Treatment

Kids Treatments

Orthodontics (Braces)

Surgery

Gallery

Before/After Images
and videos of the treatments.

About Us

Detailed Information about Clinic

Contact Us

Connect With Us:

Name: [   ]

Mobile No: [   ]

Email Id: [   ]

Message: [Type your Message here]

[Submit]

Patient Prescription

Select Patient : [_____ ⌄]

Date : [_____ ▦]

Medicine : [_____]

Treatment : [_____]

Description : [

]

Patient Bill

Select Patient : [ ]

Date : [ ]

Bill Type : [ ]

Amount Payable : [ ]

Payment Mode : [ ]

Description : [ ]

Submit   Reset