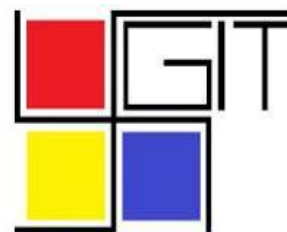# GUJARAT TECHNOLOGICAL UNIVERSITY

Chandkheda, Ahmedabad Affiliate

（Gandhinagar Institute Of Technology）

A Report On–
(Online Counselling)

Under subject of
DESIGN ENGINEERING – 1B
Ｂ.Ｅ. Semester-III
（Information Technology Branch）

Submitted by：

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Academic year（2017–2018）

<u>INDEX</u>

Introduction:

Engineering is a branch of Science and Technology where society expects lots of innovation and creativity from engineers. But today's education system has become very stereotype which just follows the traditional teaching learning process. This needs to be changed in order to have maximum contribution from engineering students to the Society.

Design engineering is an initiative taken by Gujarat Technology University in this direction with the help and guidance of the professors of IITs and the GTU Innovation Council we are looking ahead in moving on the path of innovation.

Design Engineering is a general term that covers multiple engineering disciplines including electrical, mechanical, chemical engineer, aeronautical engineer, civil, Computer Engineering, Information Technology and structural/building/architectural engineers. The uniting concept is a focus on applying the 'engineering design process, in which engineers develop new products or processes with a primary emphasis on functional utility.

This FDP is training session for all the Students affiliated to GTU so that we can convey correct methods and strategies to our Future Students so here we present the case study of the activities performed by us.

Design thinking is generally defined as analytic and creative process that engages a person in opportunities to experiment, create, and prototype models, gather feedback, and redesign. Several characteristics (e.g., visualization, creativity) that a good design thinker should possess have been identified from the literature.

The primary purpose of this article is to summarize and synthesize the research on design thinking (a) better understand its characteristics and processes, as well as the differences between novice and expert design thinkers, and (b) apply the findings from the literature regarding the application of design thinking to our educational system. Our

overarching goal is to identify the feature and characteristics of design thinking and discuss its importance in promoting students' problem-solving skills in the 21st century.

Introduction to engineering and design is the perfect way to test drive the rigors of studying engineering and explore professional carrier opportunities available after college graduation hands on projects and demonstrations that will improve our communication skills and the ethics of the engineering professions.

Innovation flowchart- the perfect place to start your project for design thinking or open innovation. This chart allows you to map out your processes before you begin. Set the stages, skills, and risks that are relevant to your project and keep it on your as you move through them. Update and edit as the project ebbs and flows.
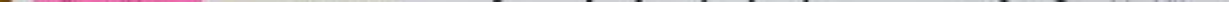
MIND MAPPING

In mind mapping we think about all aspect of our topic and we make a base plan type canvas. In this canvas we divide our topic in five parts. (1)Security, (2)Benefits, (3)Users, (4)Applications, (5)Solutions, (6)Non-employee, (7) Problems. In Activity we go to different places and different fields. And meet the people, workers, business mans, students. And we analyse hole system and we make some aspects. In Problems we think about it after the analyse the people and we found some problems which can be possible to solve. In Elements we describe the things is necessary to solve these problems and make a use full system and make users happy. In Market demand we study market and we search the demand of the new system in market so the work made easier and make more efficient. In solution we found solution of all stuffs which are describe above and give a fruitful solution as a new system or product.

AEIOU Framework
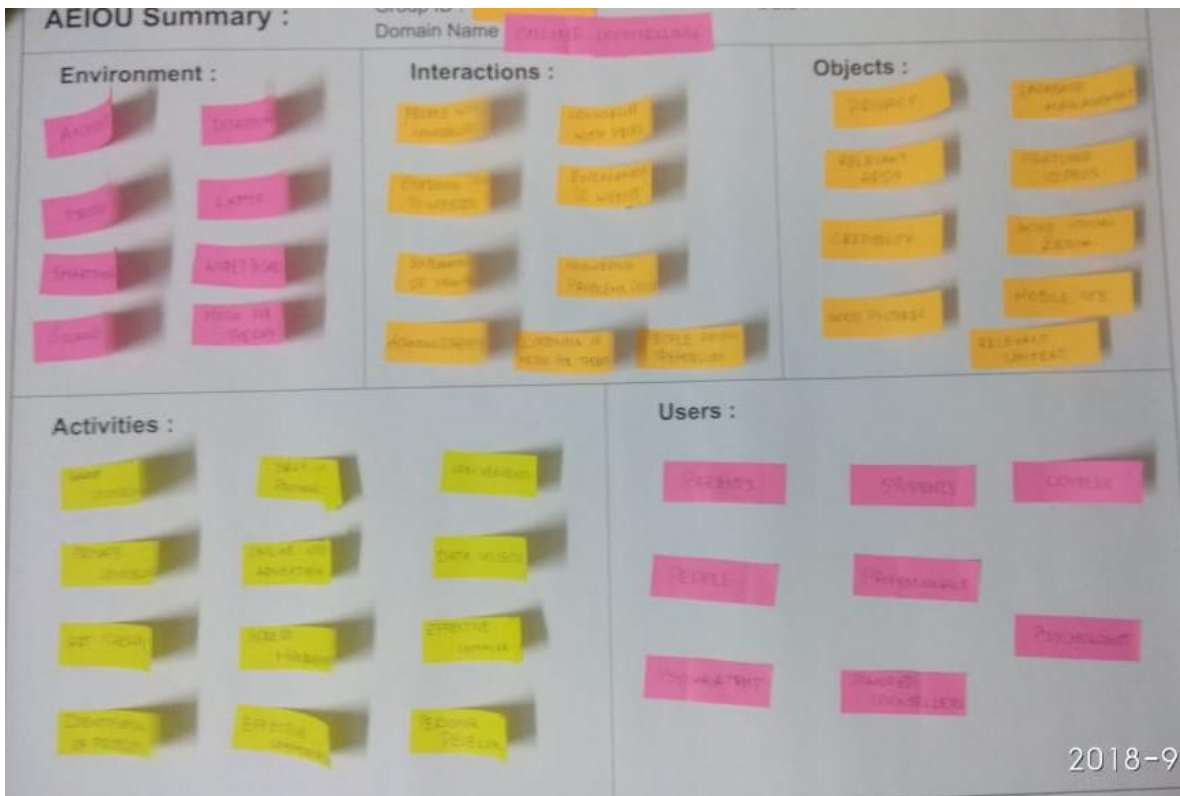
AEIOU Framework is the scenario that shows the basic activities, environment, interactions, objects and users related to online counselling. It shows how each and every aspect is related to the online counselling. It also shows elements, features and special notes related to each aspect of online counselling. It shows how things are going to be connect in future with each and every aspect. Following shows list of every aspects of AEIOU Framework.

Activities
1. Group Counselling
2. Private Counselling
3. Self Help Programs
4. Art THERIPIES
4. Convenience
5. Stress Management
6. Data collection
7. Personality Development
8. Identification of problem
9. Effective communication

Environment
1. Anxious
2. Disappointed
3. Silence
4. Laptop.
5. Smartphone
6. Wires and Cables
7. People
8. Music for therapy
9. Gardens
10. Motivational Quotes

Interactions
1. People with counselor
2. Counselor with people
3. Entering data in forms on website
4. Responding to problems online
5. Explanation of main problem
6. People among themselves
7. Acknowledgement
8. People taking therapies

Objects
1. Privacy
2. Database management
3. Relevant ADDs
4. Featured videos
5. Confidential login
6. Security of data
7. Results
8. Relevant content
9. Call to action
10. Good images

Users
1. Parents
2. Students
3. Couples
4. Professionals
5. People
6. Dignified Counsellors
7. Psychologists
8. Psychiatrists

Empathy Canvas

Design For [ONLINE COUNSELLING]   Design By [...]

Date   Version

USER [PARENTS FOR KIDS] [STUDENTS]

[COUPLES] [INDIVIDUALS]

[WOMEN] [BUSINESSMEN]

[PROFESSIONALS]

STAKEHOLDERS [CUSTOMERS]

[CREDITORS] [EMPLOYEES] [COUNSELLERS]

[THERAPISTS] [COMPUTER ENGINEERS]

ACTIVITIES [IDENTIFICATION OF PROBLEM] [ART THERAPY]

[GROUP COUNSELLING] [CONVENIENCE] [MENTAL HEALTH]

[STRESS MANAGEMENT] [PRIVATE COUNSELLING]

[ONLINE WEBSITE ADVERTISEMENT] [PERSONALITY DEVELOPMENT] [VIDEO COUNSELLING]

[DATA COLLECTION] [ONLINE COUNSELLING]

[SELF HELP PROGRAMMES] [MUSIC THERAPY] [EASY PAYMENTS MODES]

[EFFECTIVE COMMUNICATION] [NATURE THERAPY]

STORY BOARDING

HAPPY

Anirut was a well groomed boy in a well belonged family. He was 25 years old employed at a well known company. He was doing good in the beginning of his work days and went on growing and sprouting day by day but his success was not seen in a good manner to some people. So they pressurised him for his more good work and ultimately he couldn't took that pressure and went on the bad path of drugs and smoking and went in such deep that he lost everything and then one day his good friend made him realize of his mistakes and showed him path to counselling and get out of it and he took that advice and counselled for his self and he came out of his habit very easily as he did counselling online without wasting time and a lot of money which made him happy.

HAPPY

[handwritten in pink, largely illegible]

SAD

Samir belonged to an average family. but he was very talented and a sharp mind boy. He always came on top in his school and was known as the topper boy. His aims were very sharp & high and he wanted ... to architecture all of them. He got 99% in his 9th board Exams and was leading his future to a very bright side. His two seceders work in all the fields available of his 10th and he was totally confused so his teacher suggested to take a proper counselling and choose his future but he couldn't afford that counselling. So his friend taught him about online counselling. He found many such websites but still was not able to afford that counselling as though the price was less compared to the others but at a time he couldn't arrange such amount of money and there were no such options to pay in parts so he paid in parts he could ...

SAD

A couple named Manish and Manisha got married two years back. but they were not happy because their marriage as there was no mutual understanding between them and all the things took meaningless between them. Though they both were a working couple. Now as they were married they thought to give a chance to each other and tried to solve the problems. but they failed in this also. So, one of Manisha's friend suggested her to get counselling but as they were independently working couple they didn't share time for the counselling so his friend suggested non of online counselling. They started online counselling and in starting they enjoyed the counselling and the counsellers but as time passed they didn't get results as what the counselling promised person didn't gave them and they went worse...

To define any user centric problem, we need to know the user properly. That was what this canvas was all about. We thought of so many people but wanted to go for some people that mostly remain untouched by technology but are larger in number; we thought about common people. They cover a large mass but are least touched with technology.

After that the next portion was stakeholders, who are the people that directly or indirectly make an impact on the life of the common people, our user. After thinking we got so many names. The simple looking life of a common man is surrounded with many stakeholders that make an impact on his life and profession.

They were manufacturer, traders, transportation agent and business man. 'Activities' was the next portion, in which we had to include the activities that common man carry out in their life. We tried to note down all the activities that they do in the parking. One after another the number of activities started growing. Last and the most interesting part was the 'Story Boards' which can be called the board of emotions. It helped us understand that when we build anything for anyone, the purpose and emotion behind that are equally important. So many stories were striking to our minds and
we drafted the four which we thought were connected to the roots of being a common man. This process somehow gave us a feeling of being in the shoes of a common man, and with that the first canvas was complete.

Users
1. Parents
2. Students
3. Couples
4. Professionals
5. People
6. Women
7. Individuals
8. Business people

Activities
1. Group Counselling
2. Private Counselling
3. Self Help Programs
4. Art THERIPIES
4. Convenience
5. Stress Management
6. Data collection
7. Personality Development
8. Identification of problem
9. Effective communication

Stakeholders
1. Customers
2. Creditors
4. Employees
5. Therapists
6. Computer/IT engineers

STORY BORDING

Happy Story

Arjun was a well grownup boy in a well belonged family. He was 25 years old employed at a well-known company. He was doing good in the beginning of his work days and went on growing and growing day by day. But his success was not seen in a good manner tot some people, so they pressurized him for his more good work and ultimately he couldn't took the pressure and went on the bad path of drugs and smoking and went in such deep that he lost everything and then one day his good friend made him realize of his mistakes and showed him path to counselling and get out of it and he took advice and counselled for his self and he came out of his habit very easily as he did counselling online without wasting time and a lot of money which made him happy.

Sad Story

A couple named Manish and Manisha got married two years back, but they were not happy from their marriage as there was no mutual understanding between them and all things have messed up between them. They both were a working couple now, as they were married they thought to give a chance to each other and tried to solve the problems, but they failed in this also. So, one of the Manisha's friend suggested her to get counselling, but as they were independently working couple they didn't have time for counselling so her friend suggested her of online counselling. They started online counselling and in starting they enjoyed the counselling and the therapies but as the time passed they didn't got results as what the counselling promised them didn't gave them and kept making money from them and ultimately, they got apart as thing went worst.

Ideation Canvas

After getting to know the user and his activities, the next step was to know his problems. But to do that we had to come up with possible contexts, situations of the parking system workers activities. Because only after discussing the various possibilities of how several activities need to be done, can we find out the Engineering is after all about helping people through technological solutions, making processes simpler and less cumbersome. We thought about how we can change or improve a basic smartphone and change it to an advanced smartphone. The changes we made are according to the desire of the people. Then arrived the next portion of finding possible solutions. Here we had to list all the ways in which the problems of common man could be solved. Our team belongs to the computer engineering department but we were told we could include technologies from other branches of engineering as well. Following are the components of the ideation canvas.

People
1. Therapists
2. Businessmen
3. Couples
4. Engineers
5. Parents
6. Women
7. Students
8. Counsellors
9. Employees
10. Professionals
11. Workers

Activities
1. Group Counselling
2. Private Counselling
3. Self Help Programs
4. Art THERIPIES
4. Convenience
5. Stress Management
6. Data collection
7. Personality Development
8. Identification of problem
9. Effective communication

Situation/Context/Location
1. Stressed
2. Anger
3. Emotional
4. Misunderstanding
5. Mental Disturbance
6. Therapy rooms
7. Counsellor cabin
8. House
9. Work place
10. Gardens
11. Art room

Props/Possible Solutions

1. Special treatments under budget
2. Confidential logins
3. EMI options available for payments
4. Privacy maintained
5. 24x7 Service
6. Regular follow-ups
7. Case history maintained
8. Report record maintained
9. Therapy centres nearby you
10. Various therapies
11. In special cases counsellors will to your door step
12. Impactful application
13. All under one roof
14. Impactful Website
15. Face to face service provided
16. Recommend and earn
17. Time saving as no need to go anywhere

Prototype
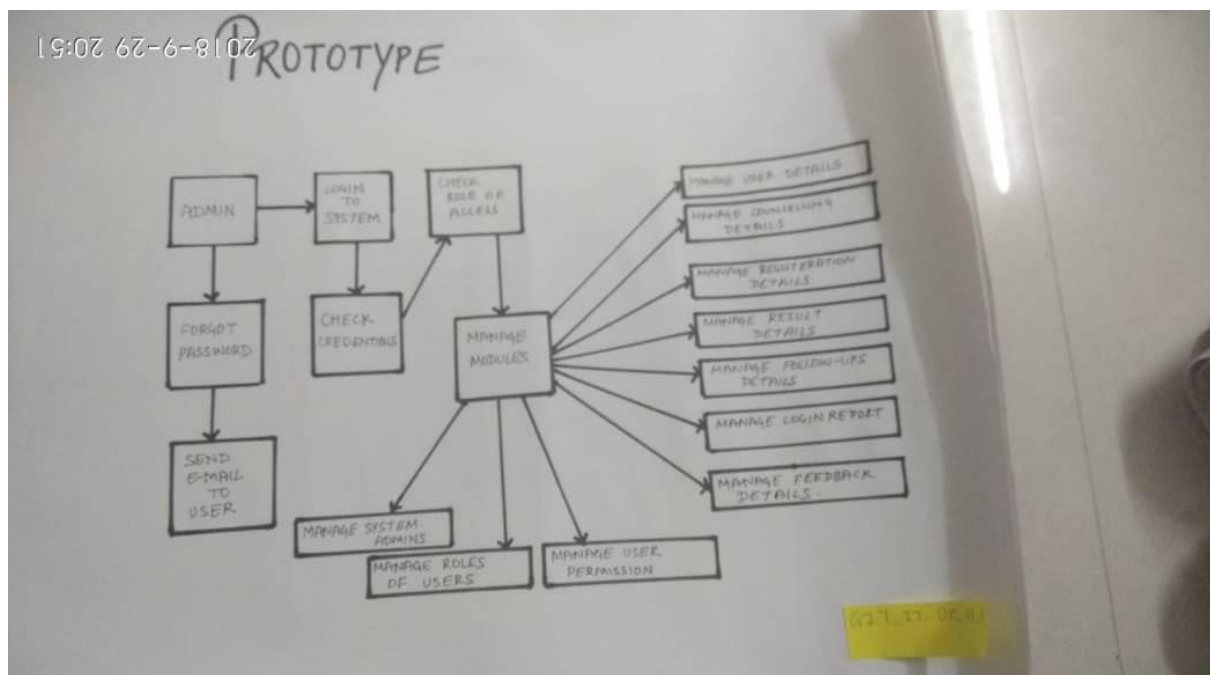
Learning Needs Matrix Canvas
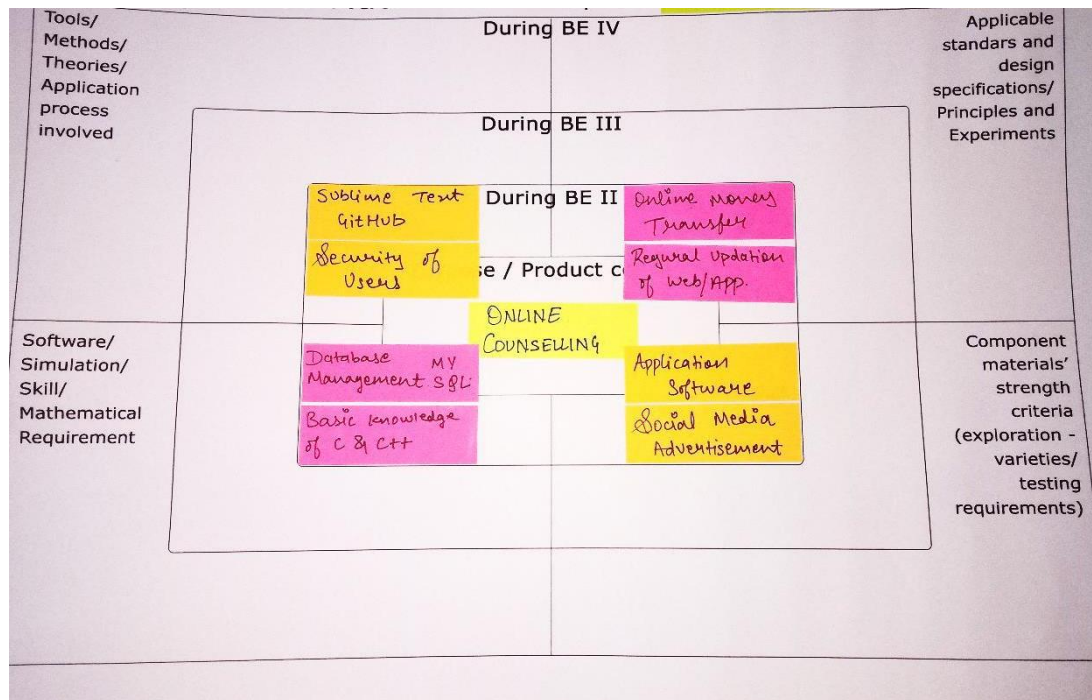
Learning Needs Matrix will help students to identify the learning requirements at an early stage along with prioritization of specific learning along with defined time duration/ time allocation for each Learning priority.

Identification will be focused on listing out both
(i) the learning, which is included in some subject of the formal Syllabus of your branch and
(ii) the learning, which is required for solving the Design problem and which may not be included in the formal syllabi of the other subjects. All such learning, required for developing the product, should be considered to be required to be studied for the group of students, who are working on the product. It may include learning of specific skills.

Product Development Canvas
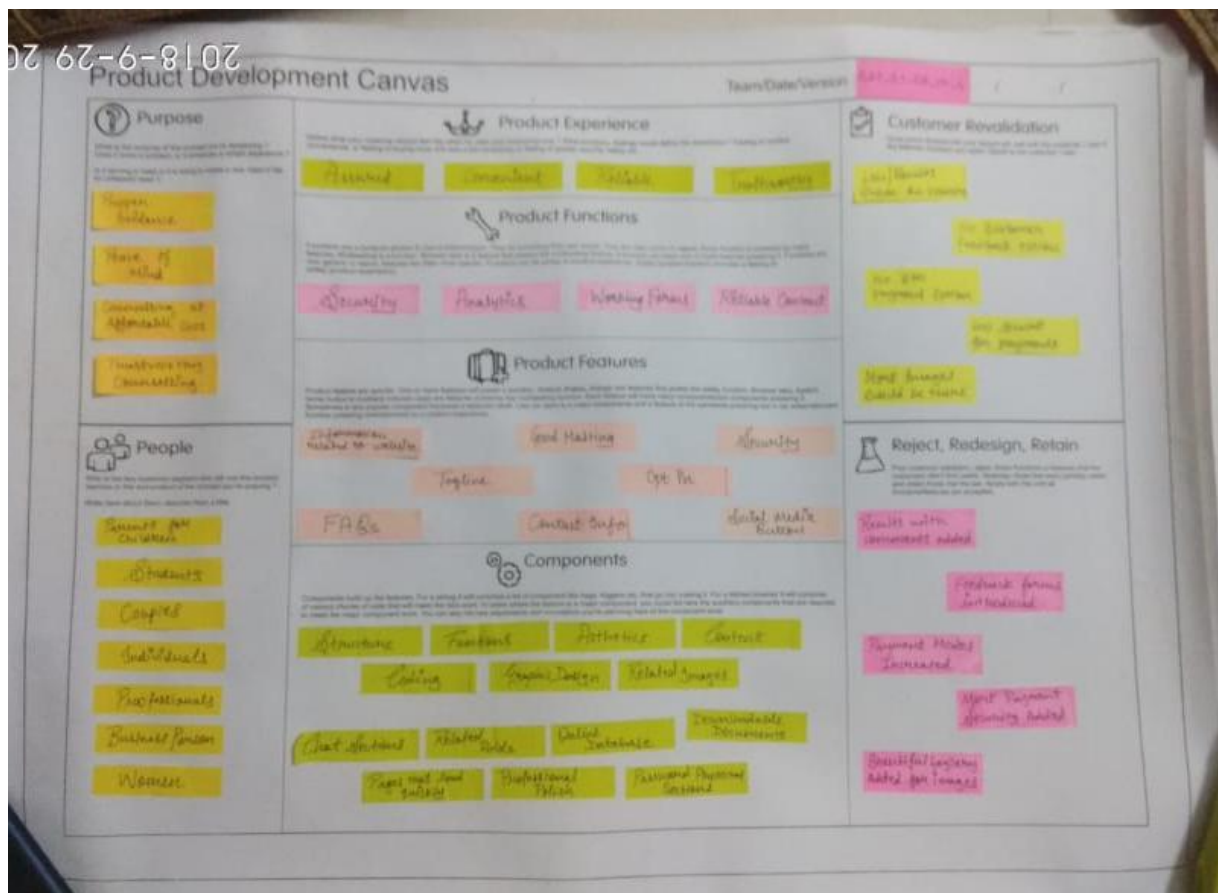
Now arrived the core part of the design process. We had to design a product based on a key solution. A key solution according to our understanding was a solution which solved a key problem. Out of the many possible solutions for multiple problems that we listed down in the Ideation' phase, we recognized some problems that if solved would be very Technically rewarding to the people and functionally rewarding to the IT department of India.

The first thing we had to do was clarify the purpose of our product. Our purpose was clear that is to design such a smartphone according to the desire of the people and with the advance technologies. Following are the components of product development canvas.

Purpose
1. Proper guidance
2. Peace of mind
3. Counselling at affordable cost
4. Trustworthy counselling

People
1. Therapists
2. Businessmen
3. Couples
4. Engineers
5. Parents
6. Women
7. Students
8. Counsellors
9. Employees
10. Professionals
11. Workers

Product Experience
1. Assured
2. Convenient
3. Reliable
4. Trustworthy

Product Functions
1. Security
2. Analytics
3. Working forms
4. Reliable content

Product Features
1. Information related to website
2. Tagline
3. FAQs
4. Good hosting
5. Contact info
6. OPT IN

7. Security
8. Social media button

Components
1. Structure
2. Functions
3. Aesthetics
4. Content
5. Coding
6. Graphic design
7. Related images
8. Chat sections
9. Related ADDs.
10. Online database
11. Downloadable files
12. Pages that load quickly
13. Professional Polish
14. Password protected sections

Customer Revalidation
1. Less results shown on website
2. No customer feedback option
3. No therapy centers available on site
4. More images should be there
5. Less secure for payments

Reject, Redesign, Retain
1. Results with comments added.
2. Feedback Forms Introduced
3. Payment security increased
4. Beautiful gallery introduced
5. Therapy centers with location on google map added