



GUJARAT TECHNOLOGICAL UNIVERSITY

Chandkheda, Ahmedabad

Affiliated



**Sardar Vallabhbhai Patel
Institute Of Technology
Vasad-041**

A
Project Report
On

Food Scanner

Under the course of
DESIGN ENGINEERING – 1A (2130005)
B. E. II, Semester – III
(Information Technology)

Submitted by:

Group ID:5301

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**Academic year
(2017-2018)**



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CERTIFICATE

This is to certify that the students namely, **Kaustubh Wade(160410116050), Naisargi Kothari(160410116051), Parjita Munshi(160410116064)** of ***B. E. (Information Technology) Semester III*** have successfully completed the course work and related tasks for the course of **Design Engineering 1A (2130005)** during the academic term ending in the month of October 2017.

Date of submission: 13-10-2017

Place: SVIT VASAD

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FOOD SCANNER

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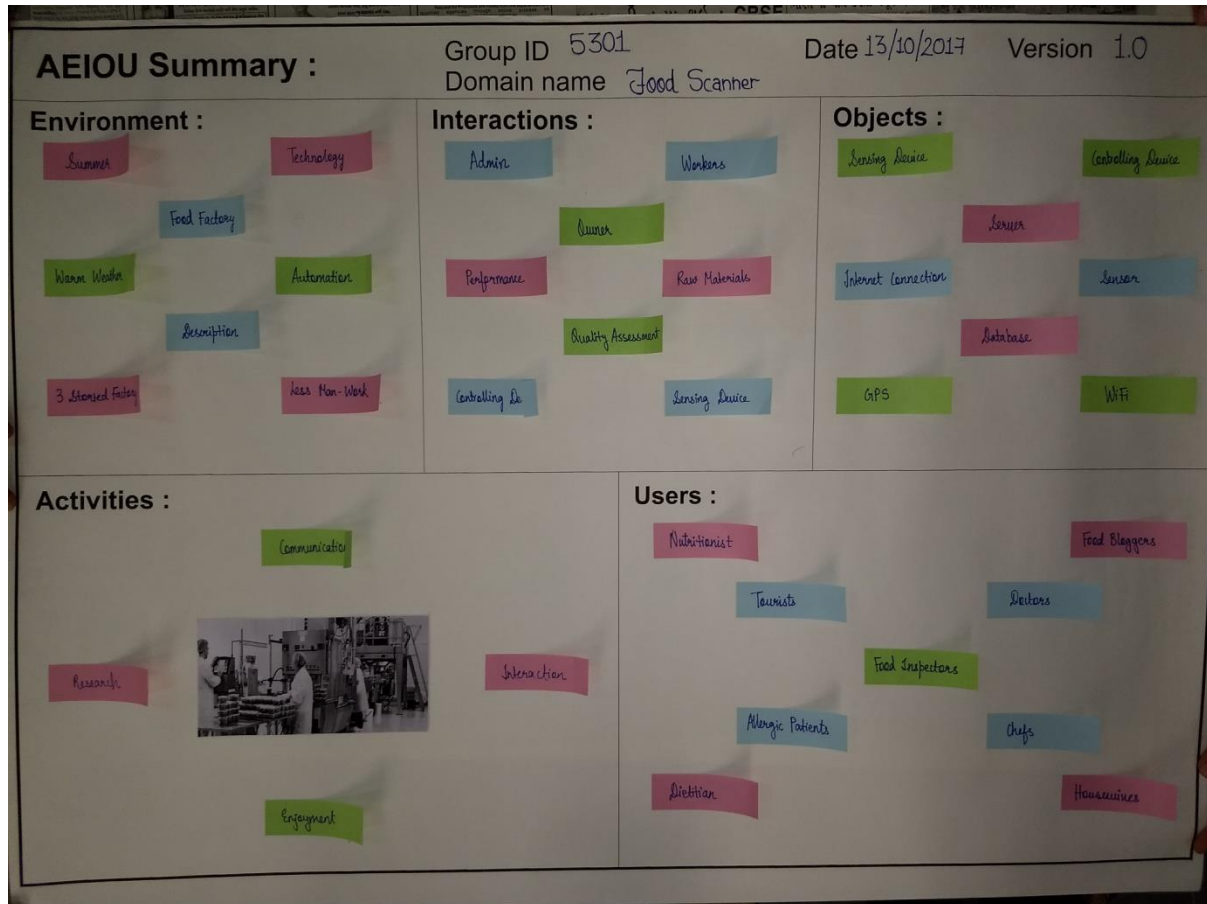
1.INTRODUCTION

Now a day we observe the many food related health problems increases day by day due to increasing in food quality issues. We rarely find healthy, hygiene and pure food.

When we go outside the country we did not know about the exact food items used in dishes. And sometimes we clearly unable to recognize some food.

So, consider this all food related issues we work on it and decide to develop basic food scanner which can scan your food to deliver accurate information.

2. AEIOU CANVAS



We discuss here some points which are covered in this canvas.

ACTIVITY:

- When we visited in food laboratory we communicate with managers and workers include every staff member and try to know about their work and how food proceed in their laboratory.
- We saw that how they check food quality and how they differentiate food by their quality and then according to use they do process on that and used that food.

- We also saw all company workers engagement with their works.

ENVIRONMENT:

- Weather
- Technology used in food processing system
- Automation -all work done by machines and only one man handles with commuter that all machines
- Food Storage machines

INTERACTIONS:

At food factory we communicate with many people like.

- Admin
- Manager
- Workers

Work done by those peoples

- Raw materials checking
- Quality assessment
- Control the devices

OBJECTS:

Objects which are used in food sensor

- Sensing devices
- Controlling devices
- Connectors
- GPS
- Wi-Fi
- Internet connection
- Database

USERS:

Mostly food scanner used by these persons

- Food inspector
- Dietitian
- Chefs
- Doctors
- Food blogger

3. EMPATHY MAPPING

Design For **FOOD SCANNER**
Date 13/10/2017

Design By 5301
Version 1.0

USER	STAKEHOLDERS
Tourists Nutritionist Engineers Doctors Farmers	Food Blogger Chef Tourists Dietitian Students

ACTIVITIES

Food Quality Identifier
 Scanning
 Description
 Image Processing
 Name of food

STORY BOARDING

HAPPY
 I visited a restaurant and ordered few items. The food wasn't appearing good and fresh when the waiter served on the table. I thought to check the food before eating. I used the food scanner and it detected unhealthy food. Thus I was saved from being sick.

HAPPY
 There was a food blogger who used to research about every food throughout the country. Once he encountered the unknown village & over there he saw food about which he was not familiar. And also he was unable to communicate with local people. Thus, he used the food scanner and got knowledge about the food.

SAD
 I went for business meeting with my colleges. Returning back to home I got to see all the shops got closed except one street food stall. From there I purchased the food & got my stomach full. But later in morning I got food poisoning, if I would have had food scanner I would be saved.

SAD
 An old lady went to a sweet shop and ordered sugar free sweets but due to mistake of the seller, he gave the sweets with sugar. Later the family members realized those sweets were not sugar free. Such carelessness can be avoided by food scanner.

Here we are going to explain users, stack holders and activity. And here we are discussing about happy story and sad story which indicate how food scanner helps us.

USERS:

- Tourist
- Engineer
- Doctor
- Farmer

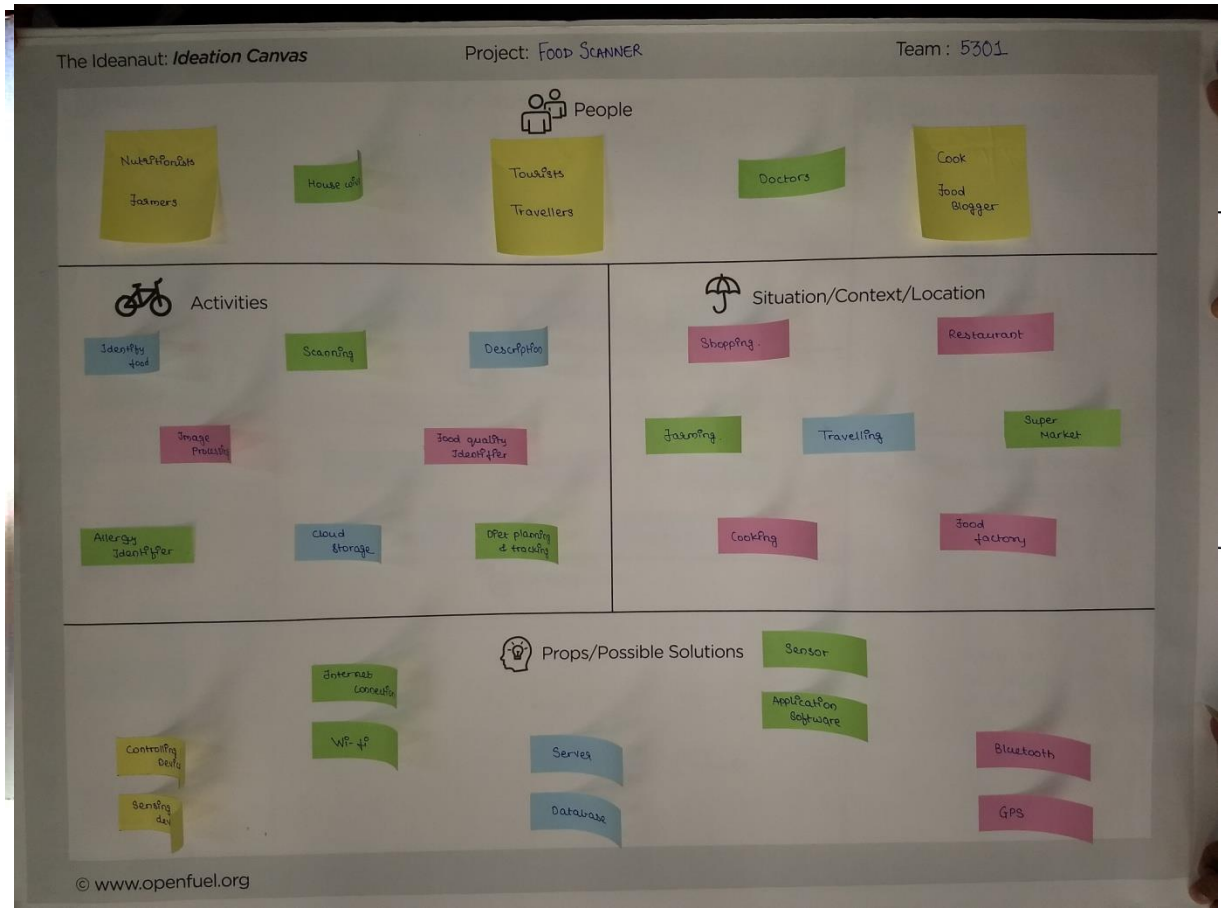
STACKHOLDERS:

- Chef
- Food blogger
- Student
- Dietitians

ACTIVITY:

- Food quality identifier
- Scanning
- Name of food
- Description
- Image processing

4. IDEATION CANVAS



Here we are describing people, and activities of people, situation, location, and what types of problems face by peoples and their solution.

PEOPLE:

- Nutrition
- Tourist
- Traveler
- Doctor

ACTIVITY:

- Scanning
- Description
- Image processing
- Cloud storage
- Identity of food
- Food quality identifier
- Allergy identifier

SITUATION/CONTEXT/LOCATION:

- Shopping
- Farming
- Travelling
- Super market
- Restaurant
- Food factory
- Cooking

PROPS/POSSIBLE SOLUTION:

- Sensor
- Bluetooth
- GPS
- Application software
- Server
- Wi-Fi
- Database

<h2><u>5. PRODUCT DEVELOPMENT CANVAS</u></h2>
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Product Development Canvas

Team/Date/Version: 5301//13/10/2017/ 1.0 /



Purpose

What is the purpose of this concept you're developing?
Does it solve a problem, or it enhances a certain experience?
Is it serving a need or it is trying to create a new need or tap an untapped need?

Recognize

Description

Allergy Prevention

Diet planning & tracking



Product Experience

Define what your customer should feel like when he uses your product/service? What emotions, feelings would define his experience? Feeling of comfort, convenience, or feeling of buying more with less cost conscious or feeling of greater security/safety etc.

User friendly

Convenient



Product Functions

Functions are a products answer to user problems/needs. They do something that user wants. They are often verbs in nature. Every function is powered by many features. Multitasking is a function. Browser tabs is a feature that powers the multitasking function. A function can have one or more features powering it. Functions are very generic in nature, features are often more specific. Functions can be similar to product experience. Safety (product function) provides a feeling of safety (product experience).

Calorie measurement

Food Processing

Ingredients



Product Features

Product features are specific. One or more features will power a function. Antiblock brakes, Airbags are features that power the safety function. Browser tabs, Apple's home button to multitask between apps are features powering the multitasking function. Each feature will have many components/sub components powering it. Sometimes a very popular component becomes a feature itself. Like car stereo is a major components and a feature at the same time powering the in car entertainment function powering entertainment as a product experience.

Scanning

Allergy Identifier

Image Process

Origin

Nutritional Information



Components

Components build up the features. For a car, it will comprise a lot of component like bags, triggers etc. that go into making it. For a tabbed browser it will comprise of various chunks of code that will make the tabs work. In cases where the feature is a major component, you could list here the auxiliary components that are required to make the major component work. You can also list new adjustments and innovations you're planning here, at the component level.

Scanning Device

Sensor

Server

Database

Internet Connection

Wi-Fi connection



Customer Revalidation

Once you're finished with your feature list, test with the customer /user if the features/functions are useful. Speak to the customer/user.

Not compatible with other OS except Android



People

Who is the key customer segment who will use this product /service or the end product of the concept you're pursuing?
Write here about them, describe them a little.

Nutritionists

Doctors

Food blogger

Farmers

Tourists



Reject, Redesign, Retain

Post customer validation, reject those functions or features that the customers didn't find useful. Redesign those that were partially useful and retain those that met the bar. Iterate with this until all functions/features are successful.

Redesign to make compatible with other OS.

This canvas shows the purpose of food scanner, people, product functions of food scanner, components of food scanner.

PURPOSE:

- Food scanner is giving you the whole Description of particular scanning food.
- Food scanner helps you to Recognizing food.

PEOPLE:

- Nutrition
- Doctors
- Food blogger
- Tourists
- Farmers

PRODUCTION FUNCTIONS:

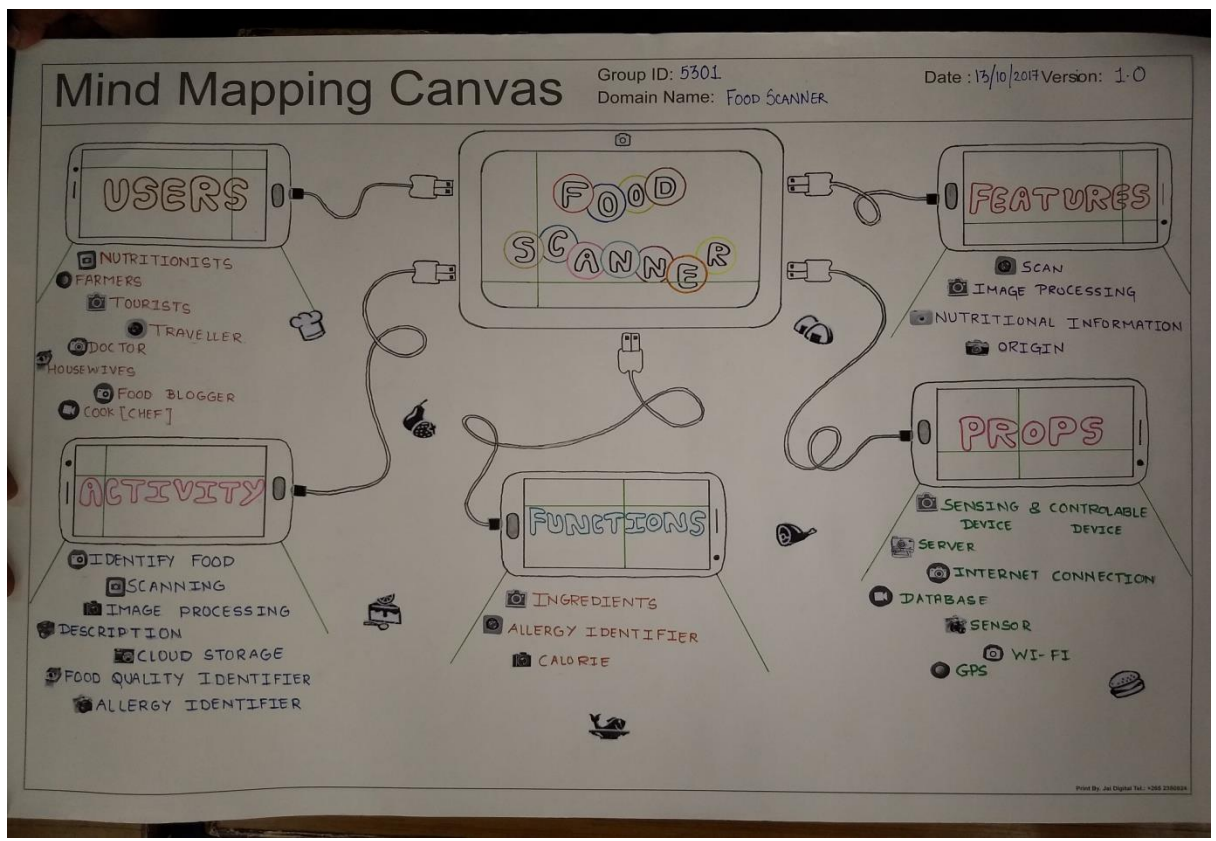
- Food processing
- Ingredients
- Calorie measurement

PRODUCT FEATURES:

- Scanning

- Image processing
- Origin
- Nutrition information
- Allergy identifier

6. MIND MAPPING



Here we can see the 5 features of food scanner in mind mapping.

- Users
- Props
- Activity
- Functions
- Features

