CHAPTER 1

1.1 PROBLEM SUMMARY

- In this competitive world several companies, in order to increase their sales and for promoting their products, issue several discount coupons.

- These coupons are made of paper and calculation of money, number of coupons distributed is manual and it requires lot of time and patience to manage them.

- Since it is manual there may be mistakes in calculation of money and coupons.

- To overcome these drawbacks we have come up with a service or a platform which can be used by all such companies to distribute their coupons.

1.2 AIM AND OBJECTIVE

- This system shall involve the company which issues coupons, the affiliate to whom the coupons shall be given by the company and finally the customer to who the coupons shall be sold to.

- The distribution as well as the redemption of the coupon will be through sensors available in the android devices.

- Thus, all the three entities involved need to have respective android applications. This entire system will be web based as well.

- Authentication shall be provided where ever necessary. Atomicity is also one of the features of this system.

The system will fulfill the following objectives:

- Registration

- Generation of e-coupons

- Distribution of coupons to the affiliates by the company

- Notification of campaigns

- Distribution of coupons to the customers by the affiliates

- Transfer of coupons within customers

- Navigation to the franchisees

- Notification, Alerts and Calendar

- Redemption of coupons

- Tracking of coupons

- Generation of reports, graphs etc.

1.3 BRIEF LITERATURE REVIEW AND PRIOR ART SEARCH

After finalising the definition when we started our research work we found out that a similar website is already there in market which is Coupondunia.com. We went through the website and we saw that it has coupons which can be directly bought from the site and then used for shopping online.

Then, we did some market research as to see if people are really appreciating our idea or not. We went to small shops and when we talked to them about our portal they appreciated us and said that it would serve as a great platform for them to advertise their goods and would be good for their business as well.

We had also performed patent search activity for our project. We are four members in a team and each of us studied 5 patents each. The keywords which we used for our patents were "coupon", "coupon distribution" etc. The details of each patent has been documented in the PSAR. Each patent that we studied gave us an insight in understanding our project in a better way. The patents that we studied had some limitations that we discovered and tried to overcome in our system. Study of the abstract of each invention gave us ideas and a direction to carry out our work.

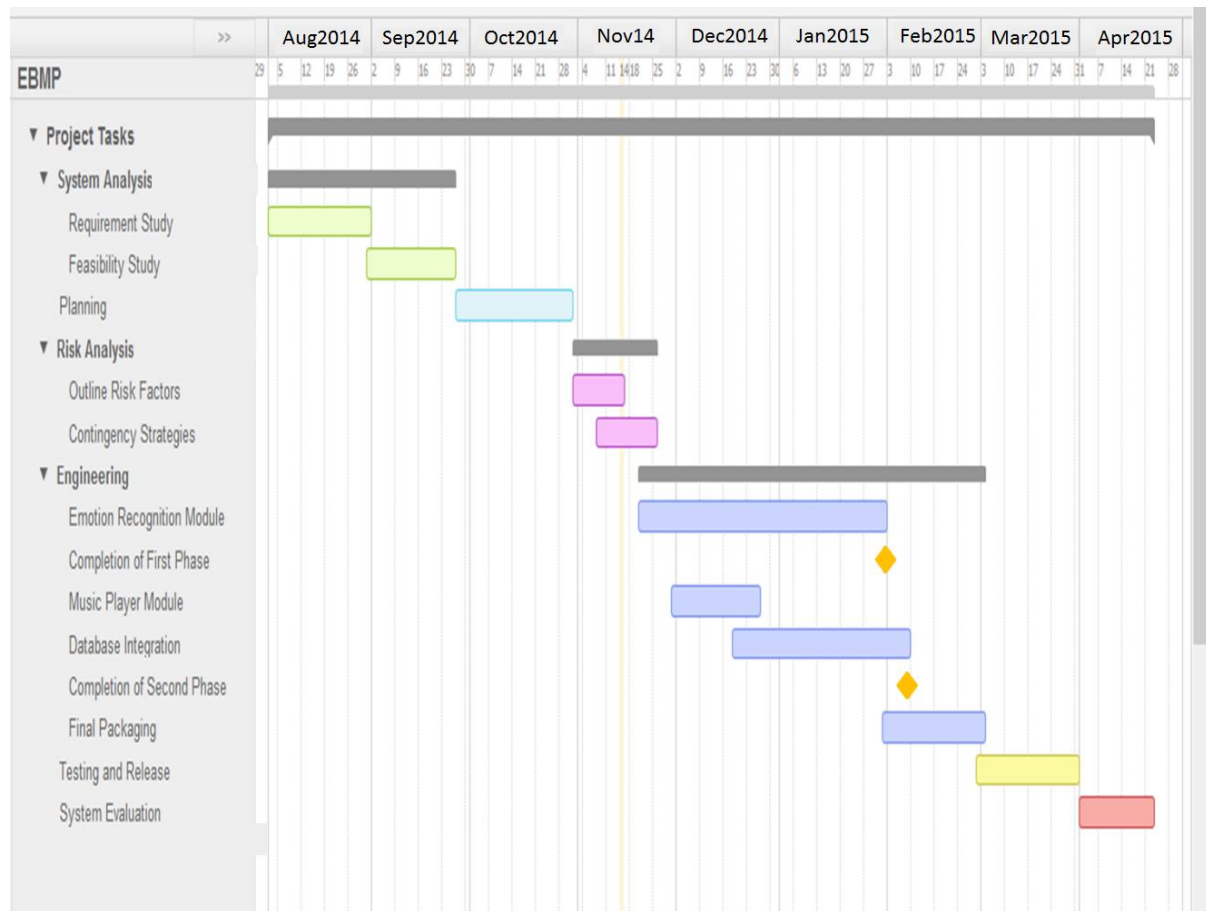## 1.4 PLAN OF WORK

1.4.1 PROJECT PLAN

Fig. 1.1 Project Plan.

1.4.2 ROLES AND RESPONSIBILITIES

Proper project team organization is one of the key constraints to project success. If the project has no productive and well-organized team, there's an increased probability that this project will be failed at the very beginning because initially the team is unable to do the project in the right manner. Without right organization of teamwork, people who form the team will fail with performing a number of specific roles and carrying out a variety of group/individual responsibilities.

Roles and Responsibilities of Individual Members

Tasks	Member's Name

Requirement Study and coding	Alisha
Feasibility Study, coding	Dhara/Miki
Planning and Requirement study	Karan
Online Risk Factors	Alisha
Contingency Strategies	Dhara
Completion of First Phase	Miki

Table. 1.1 Roles and Responsibilities.

Name of Internal Guide :   Mr. Sonu Choudhary

Name of Members   :   1). Alisha Vyas- 110050131024

                2). Dhara Shah- 110050131054

                3). Miki Patel- 110050131030

                4). Karan Patel- 110050131102

A Project Team is an organized group of people who are involved in performing shared/individual tasks of the project as well as achieving shared/individual goals and objectives for the purpose of accomplishing the project and producing its results.

The best team structure depends on the Management style. Team Structures are of three types:

1. Democratic Decentralized

2. Controlled Decentralized

3. Controlled Centralized.

Our team organization is Democratic Decentralized. There is no leader in our team. We have divided out work as per the interests. The modules of our project are divided among us as per the interests so that work will be completed effectively. So we have chosen Democratic Decentralized team organization.

1.5 MATERIALS AND TOOLS REQUIRED

Introduction to Microsoft visual studio 2010

Microsoft Visual Studio 2012 is the development system for designing, developing, and testing next-generation. Microsoft Windows Based Solutions, Web applications and services. By improving the user experience for Windows vista, the 2007 Microsoft Office System, mobile devices, and the web, Visual Studio 2012 helps individuals and organizations rapidly create and deliver compete connected, comprehensive, and compelling software solutions with breakthrough user experience.

It delivers the following key advances :-

- Rapid Application Development

- Work with Data in Unified and Integrated Way

- Build Applications That Run on Multiple Versions of the .NET Framework

- Collaborate Across The Development Cycle

- Integrate Database Features into the Application Lifecycle Management

- Enable Seamless Collaboration Between Developers and Designers

- Experience New Tools and Support for Web Development

- Build Reliable and Scalable Applications for the Microsoft Office System

- Build Stunning Applications for Windows Vista

➢ Technology Used

- ASP.net

- Windows API

- MS visual Studio

- MS SQL server

➢ Understanding the .NET Framework Architecture:-

- The .NET Framework has two components: the .NET Framework class library and the Common Language Runtime (CLR).

- The .NET Framework class library facilitates types (CTS) that are common to all .NET languages.

- The common language runtime consists of (class loader) that load the IL code of a program into the runtime, which compiles the IL code into native code, and executes and manage the code to enforce security and type safety, and provide thread support.

Introduction about ASP.NET:

ASP.NET, the latest version of Active Server Pages, is Microsoft's technology for building dynamic pages, database-driven Web sites. Active Server Pages is one of the most popular languages for building scalable, interactive Web sites. Several of the highest traffic Web sites on the Internet employs Active Server Pages. Examples include Dell Online, Barnes and Noble, 1-800-flowers, and the Microsoft site itself.

- Easy Programming Model

- Flexible Language Options

- Great Tool Support

- Rich Class Framework

- Compiled execution

- Rich output caching

- Web-Farm Session State

- Memory Leak, Deadlock and Crash Protection

- Dynamic update of running application

- Easy Migration Path

- Multi-targeting Support

In previous versions of Visual Studio, you could only build projects that targeted a single version of the .NET Framework. With Visual Studio 2012, we have introduced the concept of Multi-targeting. Through a simple drop-down, you can decide if you want a project to target .NET Framework 2.0, 3.0 or 3.5. The builds, the Intelligence, the toolbox, etc. will all adjust to the feature set of the specific version of the .NET Framework which you choose. This allows you to take advantage of the new features in Visual Studio 2010, like the Web design interface, and the improved JavaScript support, and still build your projects for their current runtime version.

Android

We will be making android application for our web application which will contain wallet of affiliate and customer and will be used for distribution and redemption of coupons. We will be using sensors in android to transfer coupons from one device to another. The sensors which will be used are proximity sensors and accelerometer.

For this purpose we will be using Android Studio which is the latest software for developing android applications.

The advantages of preferring Android Studio over Eclipse are as under:

- Gradle Build Tool Support - Out of the box Gradle tools support. Gradle is loads better than ant. It supports dependency management which is a huge plus.

- Dual Monitor supports much better than eclipse.For instance you can have 2 projects open in 2 windows or have all your UI building in another monitor.

- Build Variants - Quickly switch between different product versions.

- Version Control Merging is efficient than eclipse.

- Doesn't crash.

- Powerful Refactoring support.

- Debugging is less cumbersome than eclipse.

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