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**IRCTC Redesign**

**Project Report**

**1 INTRODUCTION**

1.1 Purpose

The IRCTC Website is the highest visited website in India. About a million people travel across cities and states and get their train tickets booked everyday. And according to statistics,

1. The IRCTC website is among the 750 world’s most visited website.
2. On an average around 0.4 million tickets are booked everyday.
3. The annual booking is of 310 million out of which 55% of such tickets are sold on-site, 37% online and 8% through third party vendors.
4. The website has over 0.6 million registered users.
5. It has over 21 million customers

Now for a website of this scale it becomes very important to provide users with the experience they deserve. That is easy ticket search, easy booking and feedback. However, this website has many inconsistencies and can make a novice user lose their way surfing their way through the website. For example, when we were simply browsing through the website, we noticed how inconsistent is every page with every previous page and how badly the system lacks in giving appropriate feedback when needed.

The goal of our project is to redesign the website by making the most used options or the most important options readily available to the user, which generally is not. Design efficient master navigation and making certain functionalities visible to the user. And making a site map to let the user know his place in the website, which otherwise makes a person feel lost while booking tickets or hotels.

The usability metrics we will be using to judge our website on is, the **time taken to complete a desired task** in comparison to the actual IRCTC website. We will also measure **the number of clicks required to perform a task**. The third metric would be to check how **easy is it for the user to explore the redesigned web site**.

1.2 Tasks Identified

The user will have only one major task, “Booking a train ticket from source to destination”. This task should not take more than 5 minutes to complete. The user will be asked to enter the source and the destination, select option available and finally enter information and book the train ticket.

1.3 Assumptions

It is assumed that the user is comfortable with using and navigating a computer and the website. It is also assumed that the user has used the website before to book a train ticket.

**2 Analysis**

2.1 Personas

| Persona 1 | “The Student” |
| --- | --- |
| Fictional Name | “John Snow” |
| Job Title/ Major Responsibility | College Student, Computer Science Major |
| Demographics | Single  20 years old |
| Goals and Task | Travels back home at the end of every semester. Hence has to visit the IRCTC website at least twice every year. Wishes the website was a little less confusing and provided options readily available. |
| Environment | Knows very well how to use the website. But is generally quite busy with stuff happening in college, hence does not wish to spend an hour trying to book a train ticket back home. |
| Quote | “Wish I did not have to know everything to use this website.” |

| Persona 2 | “A working professional” |
| --- | --- |
| Fictional Name | “Sheldon Cooper” |
| Job Title/ Major Responsibility | Investment Banker |
| Demographics | Single  30 years old |
| Goals and Task | Cab prices being exorbitant, it becomes very difficult to manage expenses. Travels by train to the desired destination everyday back and forth and wished if the site remembered the information, he entered last day instead of typing it out all the time. |
| Environment | Knows very well how to use the website. But does not wish to spend so much time doing it. Wishes to book a train without much attention to detail. |
| Quote | “I wish my company provided me with a chopper :P .” |

| Persona 3 | “The instagrammer ” |
| --- | --- |
| Fictional Name | “Irene Adler” |
| Job Title/ Major Responsibility | Instagram influencer, Travel blogger |
| Demographics | In a relationship, 27 Years old. |
| Goals and Task | Irene is an instagrammer and this time wishes to write a blog and post pictures about her journey on Indian trains. This time she chose the luxurious Maharaja Express and wishes to explore more about the train. |
| Environment | She mostly uses her phone and also has a tablet to do most of her mundane tasks and prefers it that way. |
| Quote | “I am very excited about the Maharaja express!!” |

2.2 Task Analysis Tools

Two methodologies were used to evaluate our system, Heuristic Evaluation and Cognitive Walk through. Heuristic evaluation on the IRCTC website gave us a score of 69 which comes off as “Good” which means that “Users should be able to use this site or system with relative ease and should be able to complete the vast majority of important tasks”. However, there are many issues with the website when a user performs the basic task of just booking a train ticket. Such as non-clarity in the kind of options available, non-visibility of menu which are important for booking a ticket. We have explained more about this in the tasks section. Also, a small change in design heuristics would make the website easier to use and would provide a good user experience.

All in all, the evaluations (Heuristic and Cognitive) showed that IRCTC is not a bad site to use. The user would still be able to book a train ticket and get thing done, however, the site can be made better which would be more efficient and would provide a good experience while using.

2.3 Task 1

2.3.1 Task 1 Detail

The user will be asked to book a train from ‘A’ to ‘B’ with the journey’s start date from 10th April and the return date on 12th April. The user will have to book an AC, 3rd class within a price range of 10$ - 15$. The task will require the user to,

1. Enter source, destination and date
2. Enter login information
3. Select a train from a set of available trains
4. Enter personal information
5. Enter payment option and fill out card details if necessary
6. Confirm booking

2.3.1 Task 1 Analysis

This task of booking a train ticket is not as easy as it sounds in the original website. It is both timely and difficult. The first things being, most common and basic options such as logging in can be done by the person after a minimum of 3 clicks. One has to search to even login to the system, hence for a novice user it is not very intuitive. So, most options which are highly used are either available after a couple of clicks. Second main issue with the website is the lack of a master navigation which would give users an overview of the main functions the website can do. Lastly, we also wish to provide users with a site map to help them know their location in the website since it offers users with so many options to choose from.

2.3.1 Task 1 Discussion

The current website is not very intuitive to use and fails to provide users with an efficient use of the same. So, to rectify the first issue of logging in the system with minimum number of clicks, we provide users with a login popup as they enter the first page of the website which on correct login information gives them a proper feedback “Welcome”, so as to help users proceed further into the website.

To solve the second issue of lack of master navigation, we provide users with one and declutter it by adding options which are necessary and useful and provide users with immediate usage. And to solve the final problem of navigation, we wish to make a site map for the same.

And by implementing this, we wish to increase user satisfaction and make the whole experience a better one. However, in the present scope, we will be implementing the site map as an additional feature.

**3 Prototype and Design**

3.1 Overview of Prototype and Design Features

*The prototype can be found on “XYZ”. The link has also been provided in the appendix.*

The prototype was designed keeping user satisfaction in our minds. The original website had a lot of unnecessary options, so our intention is to provide users with visible options which are mostly used. The original website also is very vague in logging into the system, it needs at least 3 clicks to go to the login page. In our redesigned system we change this by having a login button right in front of the page and also providing user with appropriate feedback. We also aim to incorporate a site map, which will help the user know his/her location in the website.

3.2 Task 1

3.2.1 Task 1 Design

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