

# Team PINEAPPLE

## Phase III: Interactive Prototypes

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## Interactive Prototype

<https://www.figma.com/proto/PHInLAvMeQ8H9w3Kkztwaw/Pineapple-team-library?node-id=400%3A531&scaling=scale-down-width&page-id=0%3A1&starting-point-node-id=400%3A531&show-proto-sidebar=1&hide-ui=1>

## Figma

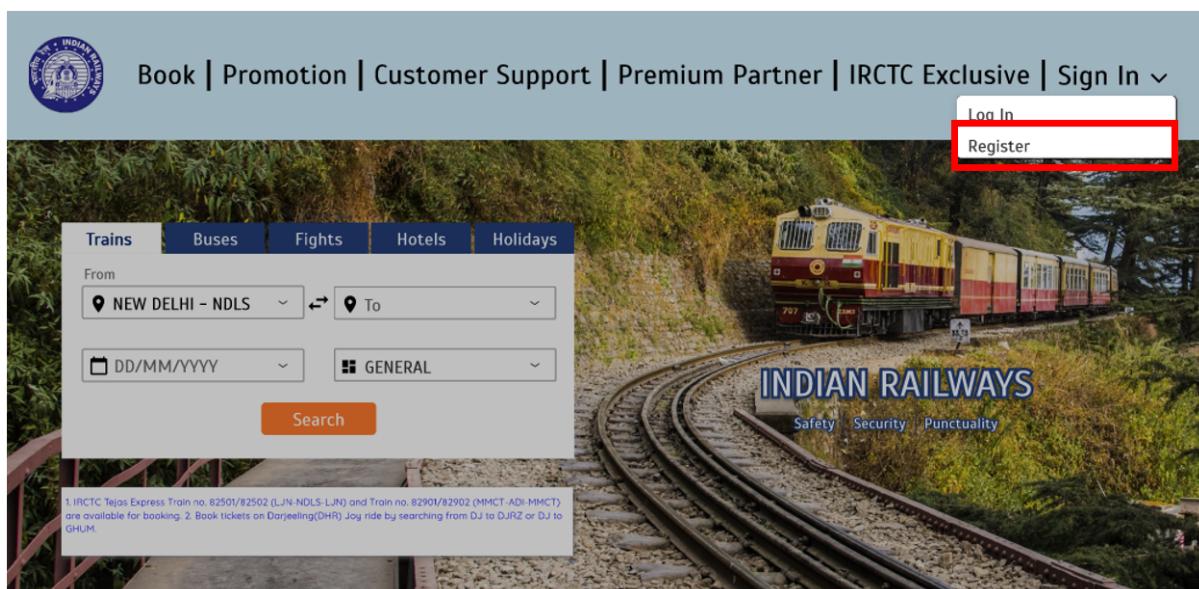
<https://www.figma.com/file/PHInLAvMeQ8H9w3Kkztwaw/Pineapple-team-library?node-id=0%3A1>

## Task 1: User Registration

As a site whose primary focus is booking transportation, it is imperative that users are able to register to properly utilize this functionality. An account provides the user the ability to consolidate their personal and payment information that would be crucial in each booking/transaction. According to user response in Phase two, over 60% of those surveyed were satisfied with the newly designed low-fidelity prototype of the registration process. As a consequence of the user feedback (from the second interviewee identified in phase 2), we have introduced input verification along with clearly identifying required fields to enhance error prevention. The same interviewee expressed the need for users being able to edit the forms that they had previously within the registration process. Therefore, we have added the ability to back and forth in forms to enhance user reversibility. Furthermore, we have insured consistency with the rest of the website in having the navigation bar remain consistent in the registration process. Additionally, we have added design dialogue to yield closure regarding the success of the registration, and the subsequent actions that the user should take. Furthermore, we have added a "View Information" page as the final step in the registration process to ensure user review of all inputted information.

### Instructions:

1. Click on "Sign in" then click on the "Register" button on the top right. This will take users to the registration form page.



2. Fill out users' basic information in the form. After users fill in all the required terms and pass the checking, the continue button changes to orange. Then they click the orange continue button to continue the registration process.

Create Your account Sign in

Basic Details Personal Details Address View Information

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GARBAGE/JUNK VALUES IN PROFILE MAY LEAD TO DEACTIVATION  
Please use a valid E-Mail ID and mobile number in registration.

User name \*  ✓

Password \*  ✓

Confirm Password \*  ✓

Preferred Language \*  ✗  
• Please select a preferred language

Security Question \*  ✓

Security Answer \*  ✓

Cancel Continue

**Note:** In this example, the users just need to select the preferred language, otherwise they are unable to continue.

Create Your account Sign in

Basic Details Personal Details Address View Information

---

GARBAGE/JUNK VALUES IN PROFILE MAY LEAD TO DEACTIVATION  
Please use a valid E-Mail ID and mobile number in registration.

User name \*  ✓

Password \*  ✓

Confirm Password \*  ✓

Preferred Language \*  ✓

Security Question \*  ✓

Security Answer \*  ✓

Cancel Continue

3. Fill out users' personal details. After users fill in all the required terms and pass input validations, the continue button activates and changes to orange. Then they click the active continue button to continue the registration process. Users can click on the "Basic Details" tab or "Back" to go back to the previous page.

Create Your account Sign in

[Basic Details](#) [Personal Details](#) [Address](#) [View Information](#)

First Name *	Middle Name	Last Name *
Cynthia		Rodgers

Info!Please provide your exact name as per Aadhaar to avail Aadhaar based benefits on IRCTC eTicketing website.

Occupation *	Date of Birth *
Student	08/04/2001

Gender *	Nationality *
Gender must provided	India

Email \* Marital Status \*

CynthiaRodgers@gmail.com	Single
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Area Code \* Mobile Number \*

+91	04426431023
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[Back](#) [Continue](#)

**Note:** In this example, we have already provided other information, so users only need to select the gender for convenience.

Create Your account Sign in

[Basic Details](#) [Personal Details](#) [Address](#) [View Information](#)

First Name *	Middle Name	Last Name *
Cynthia		Rodgers

Info!Please provide your exact name as per Aadhaar to avail Aadhaar based benefits on IRCTC eTicketing website.

Occupation *	Date of Birth *
Student	08/04/2001

Gender *	Nationality *
Female	India

Email \* Marital Status \*

CynthiaRodgers@gmail.com	Single
--------------------------	--------

Area Code \* Mobile Number \*

+91	04426431023
-----	-------------

[Back](#) [Continue](#)

4. Enter address related information. In this example, we provide all the information except the "Copy of residence to office address". After required inputs are validated, the "View info" button will turn orange. Then, click on "View Info" to view the information. Note: Users can click on the "Basic Details" tab to go back to the previous steps.

**Create Your account** Sign in

**Basic Details**    **Personal Details**    **Address**    **View Information**

---

Street \* (checkmark)  
27, Yogesh Soc, Ram Maruti Rd, Nr Vandana Talkies,next To Ramkrish, Thane (west)

City \* (checkmark)  
Mumbai

Pin Code \* (checkmark)  
400602

State/Province/Oblast \* (checkmark)  
Maharashtra

Copy Residence to office Address \* (checkmark)  
 Yes     No  
• Please select answer

Back View Info

**Note:** For the testing purpose, users need to select "Yes" to continue.

**Create Your account** Sign in

**Basic Details**    **Personal Details**    **Address**    **View Information**

---

Street \* (checkmark)  
27, Yogesh Soc, Ram Maruti Rd, Nr Vandana Talkies,next To Ramkrish, Thane (west)

City \* (checkmark)  
Mumbai

Pin Code \* (checkmark)  
400602

State/Province/Oblast \* (checkmark)  
Maharashtra

Copy Residence to office Address \* (checkmark)  
 Yes     No

Back View Info

5. In the view information selection, users can see the information they filled in previously and edit if wanted. After finishing the captcha test, the "Register" button will turn orange. Then users could click on the "Register" button to navigate to the successful registration page.

Street \*

✓

City \*

✓

State/Province/Oblast \*

✓

Pin Code \*

✓

Copy Residence to office Address \*

 Yes
  No
 ✓

I'm not a robot


  
reCAPTCHA
 Privacy - Terms

Cancel
Register

Street \*

✓

City \*

✓

State/Province/Oblast \*

✓

Pin Code \*

✓

Copy Residence to office Address \*

 Yes
  No
 ✓

✓ I'm not a robot


  
reCAPTCHA
 Privacy - Terms

Cancel
Register

6. Be notified of the successful registration and read the additional instructions.  
One may now click on "Sign in".

Create Your account

[Sign in](#)

Thank you , You have been successfully registered.

User[Cynthia Rodgers] registered successfully. Verify your mobile number and email to enjoy our services.

Your user registration confirmation mail has been sent to your registered mail id CynthiaRodgers@gmail.com

[click here](#) to login and activate your account

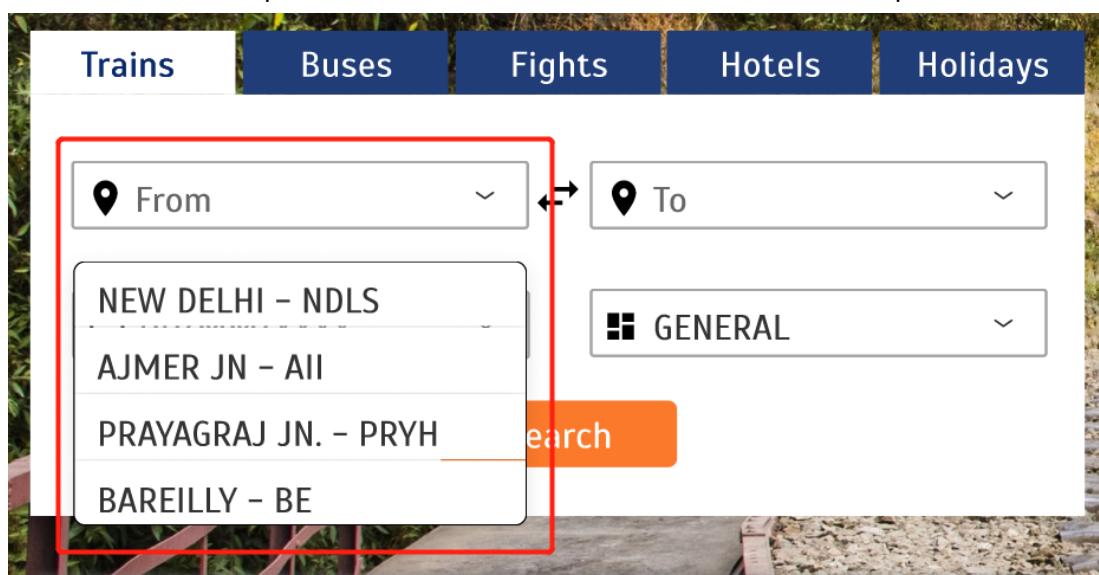
Note: International/NRI users with ISD code other than 91 have to pay Registration fees after successful registration i.e. on first login. Please note that the Registration fee for International/NRI users is Rs. 100 + GST.

## Task 2: Obtain Train Ticket Booking Information

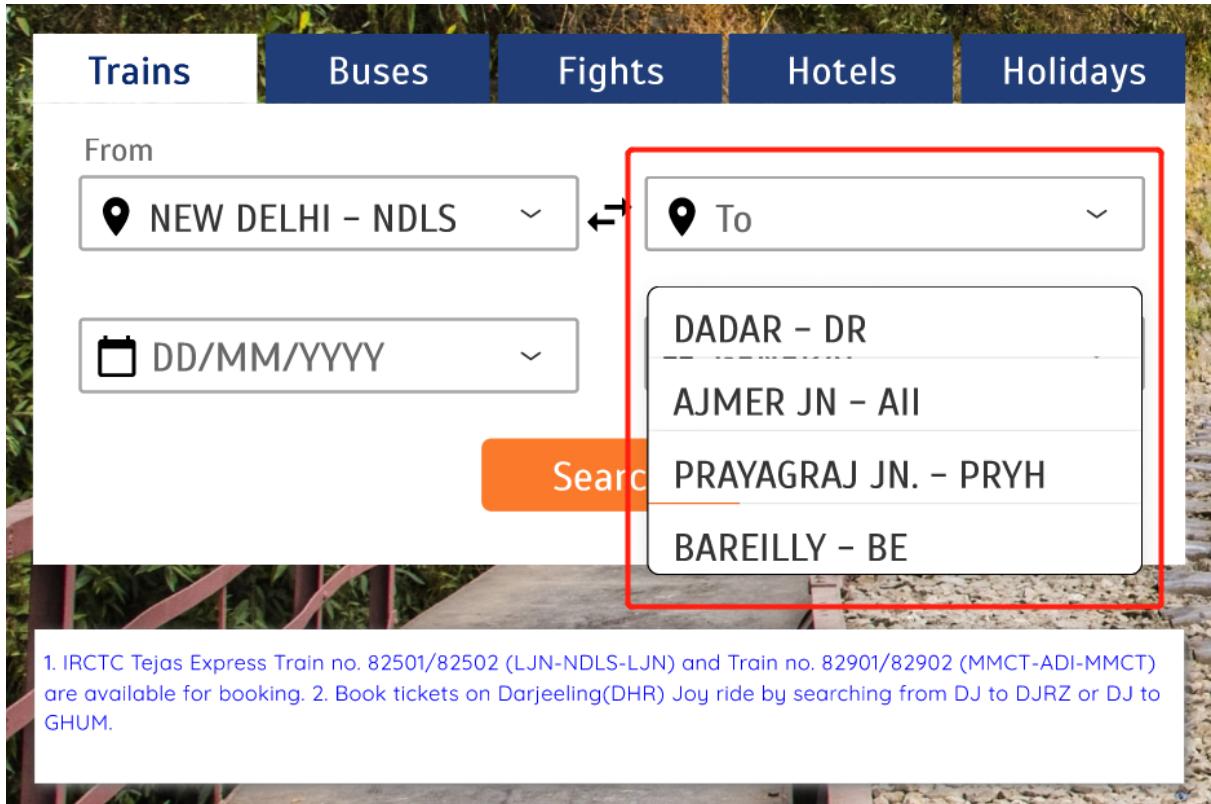
As the main functionality of this site and the landing page, it is important that booking train tickets is an easy and trivial task to complete as it is the basis of the user's impression of Irctc.co.in. In this task, the user is required to fill in information regarding the date, departure, arrival location and seat type to search for the available tickets meeting those requirements. As per our conclusion in phase 2, we moved "Buses", "Hotel" and "Holiday", "flights" booking from the navigation bar to the search ticket area. We believe, as stated in phase 2, that amendment will support the internal locus of control. Thus, this site allows all users to know what kind of ticket they are booking. In addition, in the calendar, we added a drop down menu in both the month and the year, Allowing users to choose the date more quickly rather than clicking the left and right arrows, which can only move to a month once. These features provide a list of information for users to select, which will help the user by reducing their short-term memory load.

### Instructions:

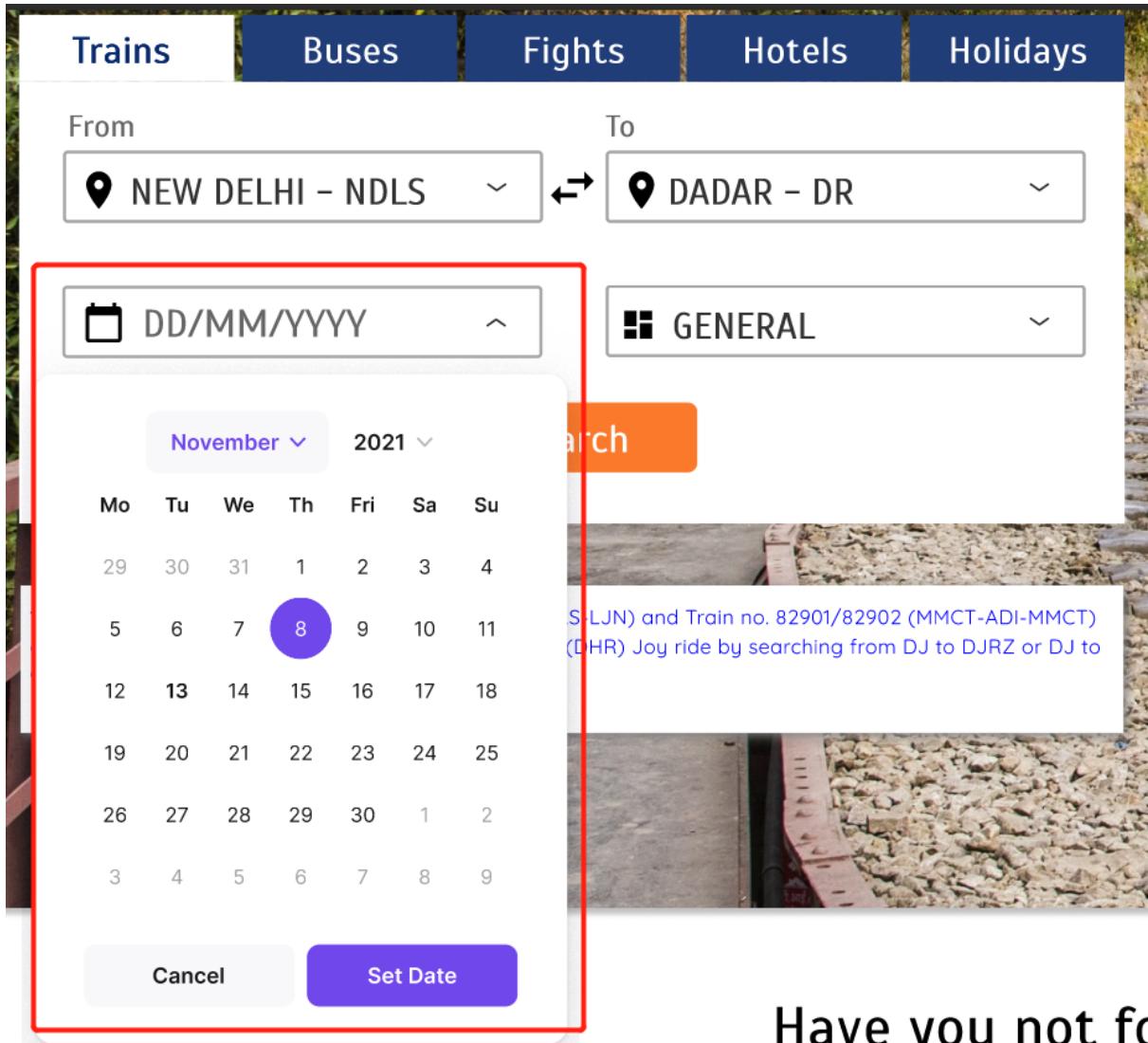
1. Choose the Departure Station by pressing "From" and select the desired station from the dropdown. Then, users click on the stations once they find the station name. In this example, users select "NEW DELHI - NALS" as the departure station.



2. Choose the terminal/arrival/destination station by pressing “To” and select the desired station from the dropdown. After users find the station name they want, they can just click on the station. In this example, users select “DADAR - DR” as the terminal station.

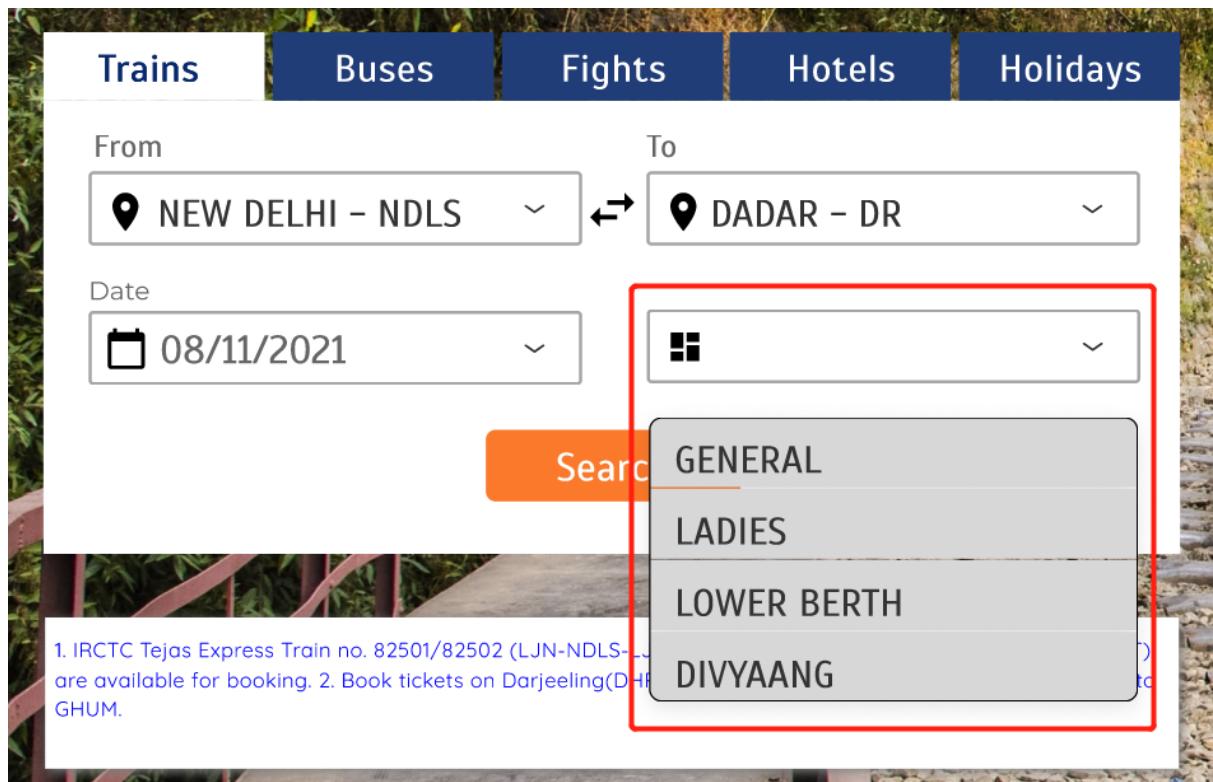


3. Select the date of the trip by clicking on the “DD/MM/YYYY” to make the calendar appear. Use the calendar to choose the date, month and year and click the “Set Date” button. In this example, users will choose 11/08/2021 as the date of the trip.

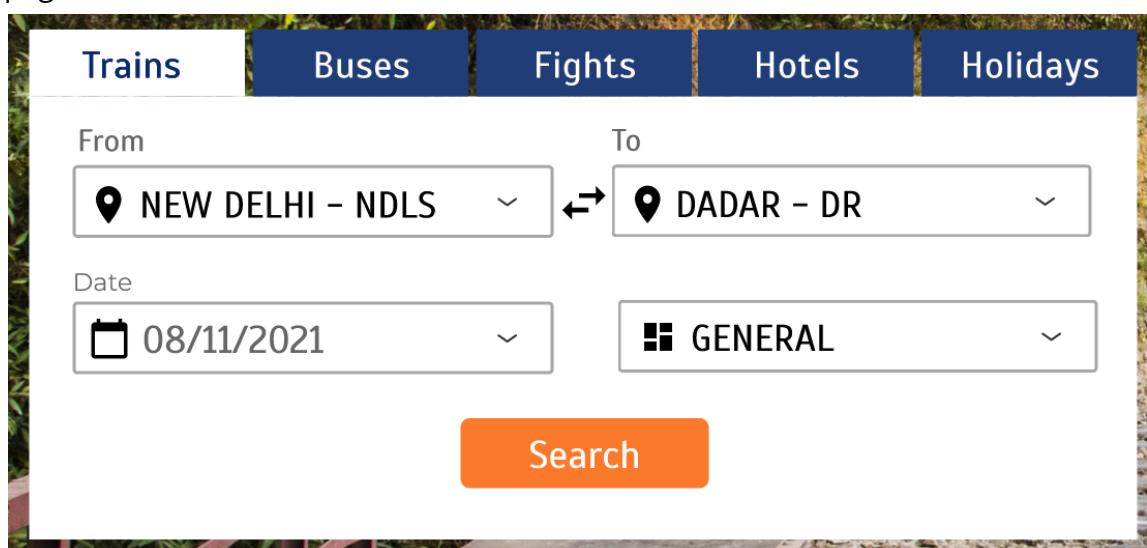


Have you not fo

4. Choose the type of train seat by clicking the bottom-right button. The user is provided with four types of seating in total: "General", "Ladies", "Lower Berth", and "Divyaang" (persons with disabilities). In this example, users select "General" as the type of train seat.



5. To finalize the obtaining booking information process, the user needs to fill in all the four fields. Then press the search button to navigate to the search result page.

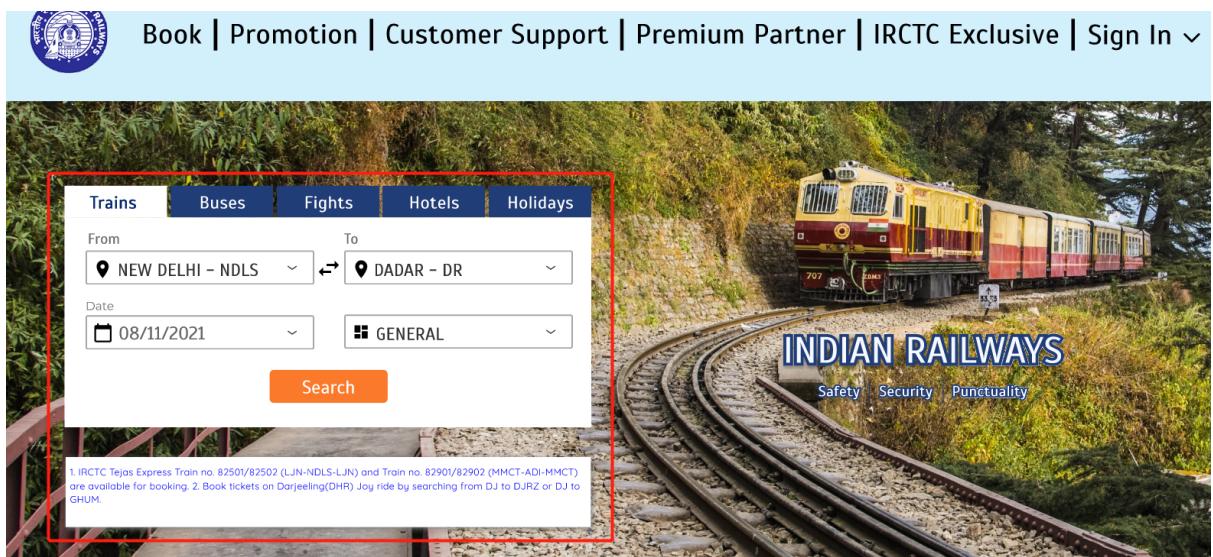


## Task 3: Find price trends/lowest price for a journey

The ability to find the lowest price for any trip is paramount to the typical rational and cost saving consumer. The original website only showed a calendar without any price related information. According to our phase two results, more than 90% of the users thought the daily lowest price and the price trend functions, in the low-fidelity prototype, to be “useful and impressive.” Therefore, as we decided in Phase 2, we added the daily lowest price and the price trend to our high-fidelity prototype. Users can click the calendar button to see the prices in the days around the day they selected, they can compare the prices and click to change to the corresponding day. They can also click the price trend button to see the price changing pattern in a histogram. In this task, the user will have to find the lowest price for a journey after selecting the basic information mentioned in the Task 2. The new feature will simplify price hunting by giving the user a better overview for the price and reducing their short-term memory load. Thus, we expect an improvement in user experience as a consequence of this feature’s addition.

### Instructions:

1. Fill in the basic information in the home page such as station/city name in “From” and “To” fields, date, and type of the seat. (For more detailed instructions, refer to the steps in Task #2)



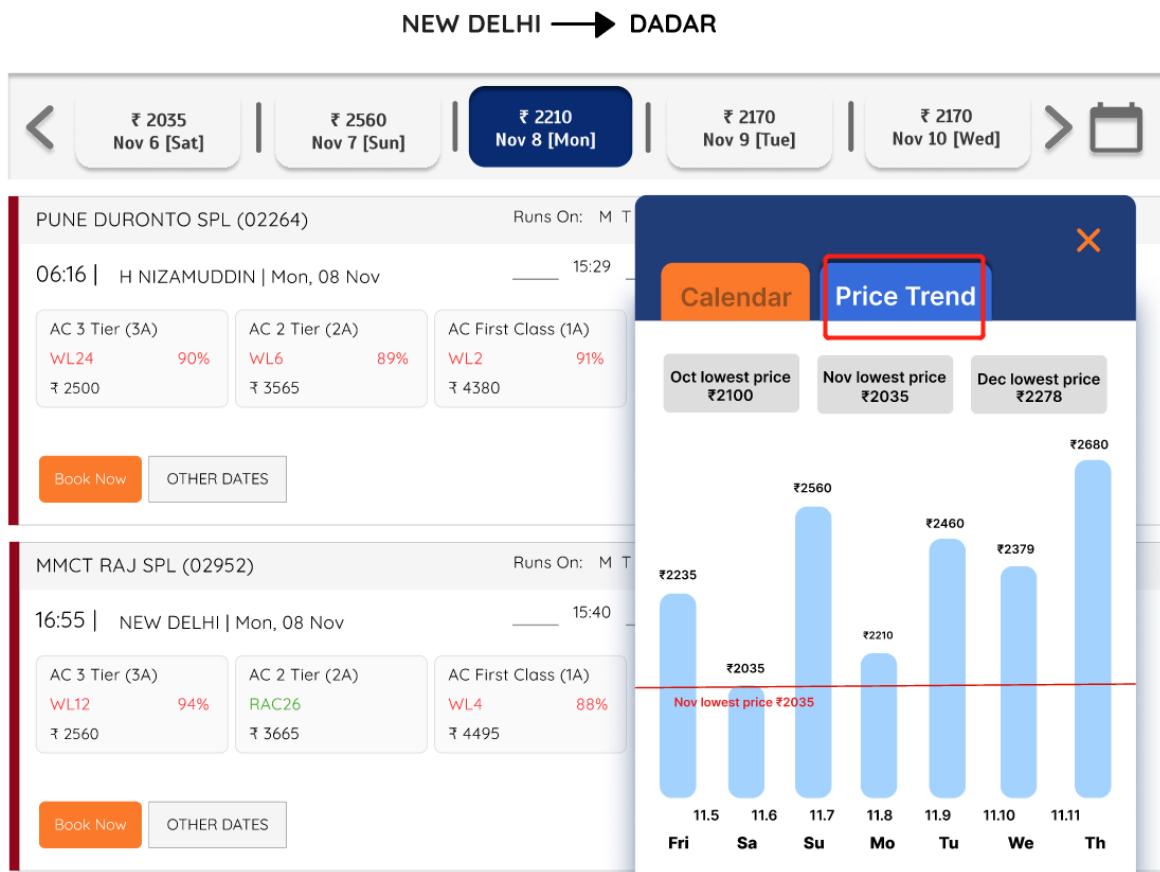
2. The search results for the information filled in Step 1 will appear along with the price on the chosen day (highlighted in blue in the center among a total of 5 days). Here the user can see the price of recent days.

The screenshot shows the IRCTC website interface for booking a train from New Delhi (NDLS) to Dadar (DR) on November 8, 2021, in the General category. The search bar includes fields for departure station (NEW DELHI - NDLS), arrival station (DADAR - DR), date (08/11/2021), and category (GENERAL). Below the search bar are filter options for Journey Class (AC First Class, AC 2 Tier, etc.) and Train Type (Garib Rath, Special). The main results section displays a summary for PUNE DURONTO SPL (02264) running on Monday, Nov 08. It shows five price points: ₹ 2035 (Nov 6 Sat), ₹ 2560 (Nov 7 Sun), ₹ 2210 (Nov 8 Mon), ₹ 2170 (Nov 9 Tue), and ₹ 2170 (Nov 10 Wed). The price for Nov 8 is highlighted in blue. A red box highlights the price row, and a red arrow points to the calendar icon at the end of the row.

3. Clicking the calendar symbol. Now one can switch between the calendar (blue tab) or price trend (orange tab) in the dropdown menu.

The screenshot shows the same IRCTC search results for the PUNE DURONTO SPL (02264) train. A red arrow points to the calendar icon at the top right of the price row. A modal window titled "November 2021" is overlaid on the page, showing the month's calendar with the 8th circled in blue. The modal also contains tabs for "Calendar" (which is active) and "Price Trend". The main search results below the modal show the train details and ticket availability for the selected date.

4. Click on the orange “Price Trend” tab. One can now see a histogram/ of the price trend and the lowest monthly price.

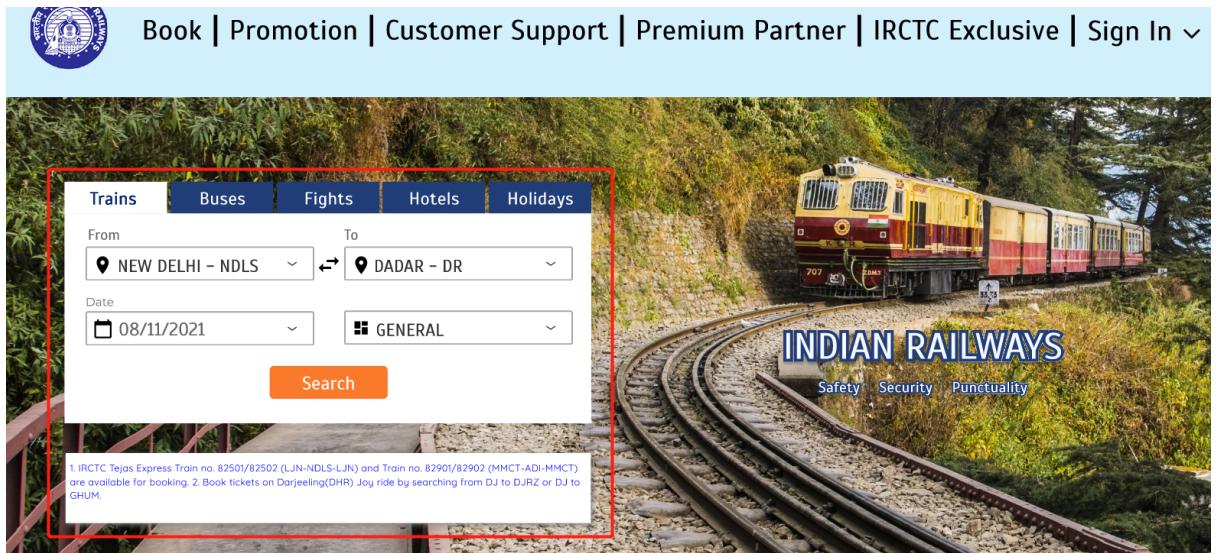


## Task 4: Filtering the Search Result

Filtering the search result is one of the critical functions on the search result page. It allows users to filter out customized ticket results easily and reduces short-term memory load. Adding this feature also improves the efficiency of the searching ticket process by reducing the amount of time it takes to search for a preferred ticket. From the survey result in phase 2, we noticed that every responder showed a positive attitude (over 4 out of 7 in scaling) on our changes on entering the departure and arrival time methods. Due to this feedback, we decided to include a filtering function in the search results page. We also added a dropdown timing selection that we had designed in our low fidelity prototypes. Users can see the filter in the sidebar on the search result page and click on the chevron pattern to enable the collapse and expand function. Users can also click on the checkbox to select the term they want or even click on the "Select All" button to choose every field in a subfilter. Finally, there is a "Reset Filter" button on the bottom and the top left of the filter, which permits easy reversal of actions.

### Instructions:

1. Fill in the basic information on the home page, such as station/city name in "From" and "To" fields, date, and type of the seat. (For more detailed instructions, refer to the steps in Task #2)

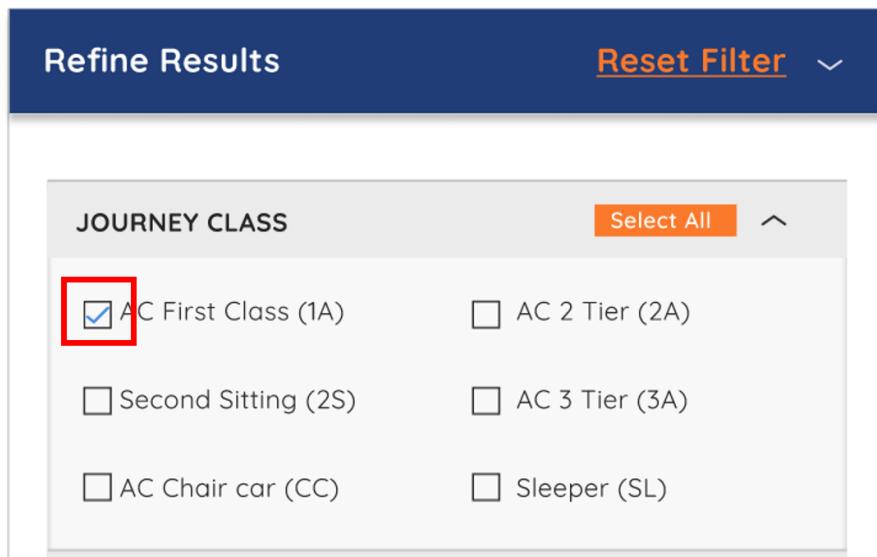


2. On the search result page, find the filter in the sidebar. Click on the collapse button to close unneeded menus for a better filtering experience.

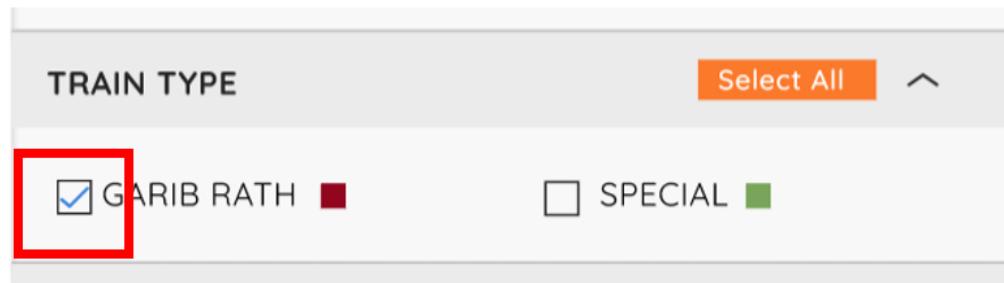
The screenshot shows the Indian Railways booking interface. At the top, there's a logo and the text "Book | Promotion | Customer Sup". Below that is a search bar with departure and arrival locations: "NEW DELHI - NDLS" and "DADAR - DR". To the right of the search bar is a "Refine Results" button and a "Reset Filter" button. A red arrow points to the "Reset Filter" button with the text "Click Here". On the left, there's a sidebar with several filter options: "JOURNEY CLASS" (AC First Class (1A), AC 2 Tier (2A), Second Sitting (2S), AC 3 Tier (3A), AC Chair car (CC), Sleeper (SL)), "TRAIN TYPE" (GARIB RATH, SPECIAL), "DEPARTURE TIME" (00:00 to 24:00), and "ARRIVAL TIME" (00:00 to 24:00). To the right, there are search results for "PUNE DURONTO SPL (0)" and "MMCT RAJ SPL (02952)". Each result includes a price of ₹ 2035, a date of Nov 6 [Sat], and a booking status (e.g., WL24, 90%, ₹ 2500). There are "Book Now" and "OTHER DATE" buttons below each result.

This screenshot shows the same Indian Railways booking interface as above, but the filter sidebar is now collapsed. The "Refine Results" and "Reset Filter" buttons are still visible at the top. The search results for "PUNE DURONTO SPL (0)" and "MMCT RAJ SPL (02952)" remain on the right side of the screen.

3. In the “JOURNEY CLASS” subfilter, users click on the checkbox (e.g. AC first Class, AC 2 Tier) within that subfilter. In this example, users will click on the “AC first Class” checkbox and filter out the results.



4. In the “TRAIN TYPE” subfilter, users click on the checkbox (e.g. GARIB RATH, SPECIAL) within that subfilter. In this example, users will click on the “GARIB RATH” and filter out the results.



5. In the “DEPARTURE TIME” subfilter, users click on the first time box (on the left-hand side of the To) and select the period's start time in the dropdown menu. Then users click on the second time box (on the right-hand side of the To) and select the end time of the period in the dropdown menu. In this example, users will choose 06:00 in the first box and 07:00 in the second box.

DEPARTURE TIME

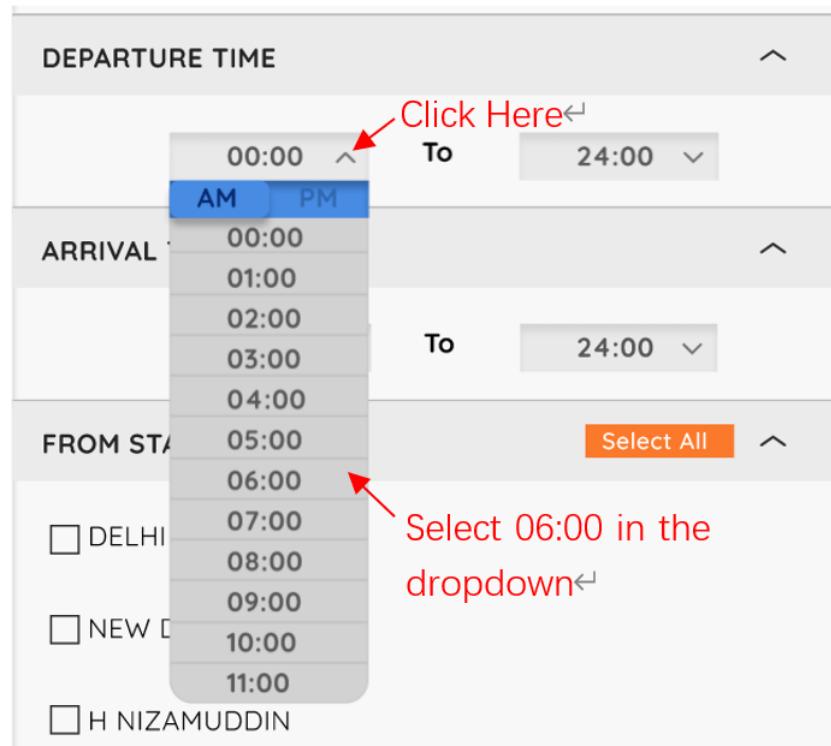
Click Here ↗

00:00 ^ To 24:00 ↓

AM PM

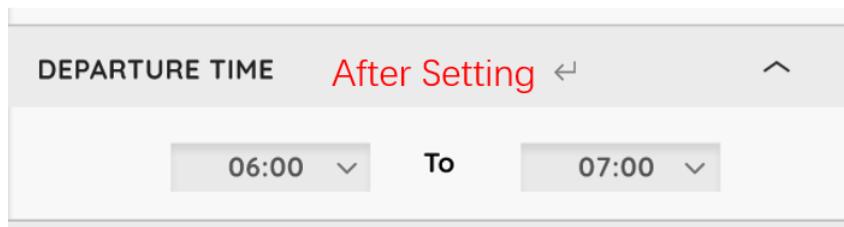
ARRIVAL 00:00 ^  
01:00  
02:00  
03:00  
04:00  
05:00 To 24:00 ↓

FROM STATION Select All ^  
06:00 ↗  
07:00  
08:00  
09:00  
10:00  
11:00  
□ DELHI  
□ NEW D  
□ H NIZAMUDDIN



DEPARTURE TIME After Setting ↗

06:00 ↓ To 07:00 ↓



6. In the “FROM STATION” subfilter, users click on the “Select All” button to select all the stations in the “FROM STATION” subfilter.

FROM STATIONS

DELHI S ROHILLA

NEW DELHI

H NIZAMUDDIN

Select All

Click Here

FROM STATIONS

DELHI S ROHILLA

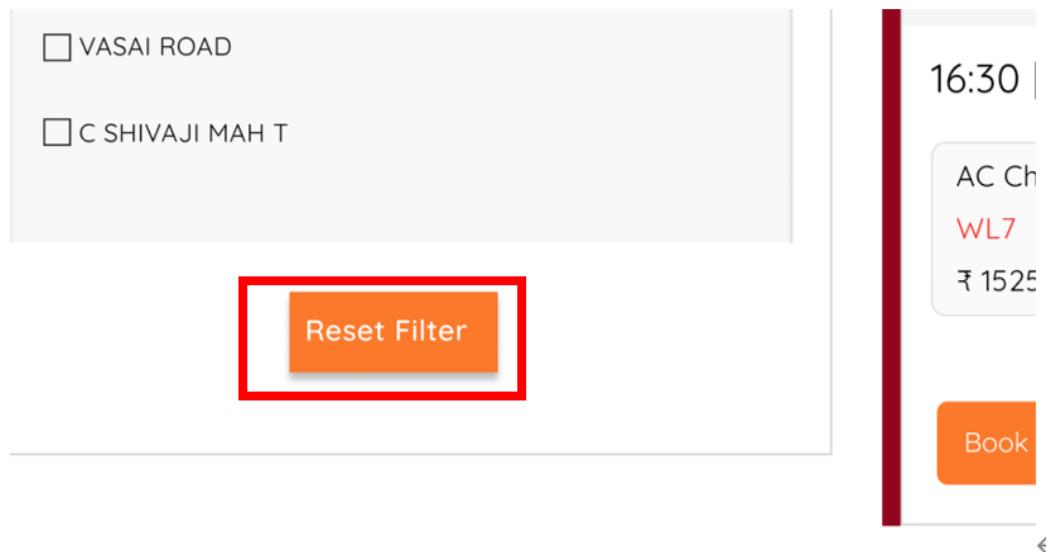
NEW DELHI

H NIZAMUDDIN

Select All

After Setting

7. On the bottom of the filter, users click on the “Reset Filter” button to reset the filter.



## Evaluation Plan

In Phase IV, the evaluation of our interactive prototype will focus on the tasks we outlined above: User Registration, Obtaining Train Ticket Booking Information, Finding Price Trends, and Filtering the Search Result. These tasks highlight the main areas of the IRCTC website we wanted to improve, and therefore, we want as much feedback on them as possible. The aim of this evaluation is to make the website easier to use, and reduce the time and complexity required to complete a task.

Users instead of experts will be used for our evaluation due to cost constraints, as well as a non biased data set that only users can provide. These users will come from a wide demographic, as we want to ensure that we receive a diverse set of results. We need to ensure that our testing is done in a controlled environment, therefore, we will try to control most of the variables of our testing.

Firstly, we will provide users with a consent form to get their informed consent. Then, background information on the site's functions and purpose will be provided to the participants. This will get them up to date with how to use our interactive prototype. Examples of background information will be:

- What the prototype does (bookings, price check, etc.)
- How to work with the prototype

Next, we will ask each user questions about their previous experience with any relatable content, such as ticket booking websites. This is to ensure that we make sure any past experiences or biases are known. After this is done, we will start the evaluation process with the users. We will be on a voice call with the users, and have them share their screen. We want to observe how the users interact with the prototype, and want to hear any concerns or annoyances they have on the spot.

We will then give the users several tasks to complete, and monitor their actions as they work to complete them. After these tasks are done, we will ask the users several questions regarding the process and their experience. Some examples of questions we will ask are:

- Were the tasks self explanatory or did you have some confusion?
- Did any task make you second guess yourself?

After the post process interview is completed, we will give the users a short survey to leave any last minute feedback, and suggest any improvements. This plan ensures that we obtain both qualitative and quantitative data in order to create a better overall product.