

Developing a Flight Delay Prediction Model using Machine Learning

Based on ten customer interviews and observations from the Fairplane Guided City Tours team



SCENARIO

Developing a Flight Delay Prediction model using Machine Learning.

Entice

How does someone initially become aware of this process?

Enter

What do people experience as they begin the process?

Engage

In the core moments in the process, what happens?

Exit

What do people typically experience as the process finishes?

Extend

What happens after the experience is over?

Steps	Search for a Ticket	Visit website or app	Choose a city, dates, and number of people	Browse available flights	View detail on the website	Start booking the ticket	Complete payment information	Confirm payment & book ticket	Email confirmation	Email reminder	Arrives at the Airport	Completes the procedure	Starts the journey	Reaches the destination	Prompt for review	Writing & submitting review	History appears in the user profile	Personalized recommendations	Mail Prompts
What does the person (or group) typically experience?	A Customer search for a ticket	A customer visits website or app	The customer types a city, dates, and the number of people to check whether the fares are available	The customer sees available flights for their dates, city, and number of people	After seeing a flight, the customer clicks the details and information about the flight.	After deciding the flight, they click the "book now" button	They fill out their contact and credit card information, then confirm and the flight is booked	They see a summary of what they are about to purchase, then they confirm and the flight is booked	An email immediately sends to confirm that the flight has been booked and arrival details about how high it is booked	They will get the email reminder about the journey a day before	The customer reaches the airport at the scheduled time	Off pass at the counter will have the required documents to verify the customer's identity	After completing at the information the customer will board the plane. They will see an arrival board and then start the journey	After a particular time of journey the customer reaches the destination	An email and in-app notifications prompt the passenger for a review	The customer writes a review and gives the journey a star-rating out of 5.	The completed journey details appear on the "past experience" area of a customer's profile	Information from the user's past can be used to create customized recommendations	If the delayed flight lands, the customer normally gets a mail notification from the application.

Interactions	Flight Accomment	Information from Co-passenger	From a website	Information from Appstore/Playstore	Data from a flight information display system	Visiting a website/Appstore/Playstore	Register with the appropriate details	Signup on the website	Section of the programme for logging in the website	Customer will receive a confirmation email	Terms and conditions regarding the travel	Dashboard and features of the application	The application's area for flight information	Feedback section on the website	Customers receives email for providing review	"Leave a review" modal window within the profile on the website, iOS app, or Android app	Completed experiences section of the profile on the website, iOS app, or Android app	Recommendations span across website, iOS app, or Android app	Home page of the Application
What interactions do they have at each step along the way?  ■ People: Who do they see or talk to? ■ Places: Where are they? ■ Things: What digital touchpoints or physical objects would they use?					Airport											The service's star rating component is used out of five stars.			

Goals & motivations	Help me get this flight booked	Help me have more fun or learn new things on my journey	Help me avoid being charged for the wrong date, location or number of people	Help me to know whether the flight is delayed	Help me to sign up for this journey	Help me get through this payment part as easy as possible	Help me to register and access the website	Help me to familiarise with the website or the application	Help me to determine the application's effectiveness and dependability	Help me to know about the flight in prior	Help to know about the terms and conditions before the travel	Help me leave the journey with comfortness	Help me publicise a comfortable travel	Help me in arranging alternate transportation or lodging	Help me see ways to enhance my upcoming journey
At each step, what is a person's primary goal or motivation? ("Help me..." or "Help me avoid...")															

Positive moments	Helpful as the website contains more features or that it would be helpful for the customer	Current payment flow is very simple, bones and simple	When based from around travel that has more details and more features, especially if the needed help is available	Finding the delay and planning around it was interesting	Given that I don't always have access to the flight number, the website makes it easy to find it.	Simplest the process to avoid changing dates depending on the application
What steps does a typical person find enjoyable, productive, fun, motivating, delightful, or exciting?	Thankful to be aware of the variety of possibilities accessible	Happy that the airline offers compensation				
		Excited to know about the special offers on special occasions				

Negative moments	Stressed due to unexpected delay	Several people expressed "Information overload" as they browse	Unpleasant about when to look for additional services and when one is to find	It can be challenging to enter numerous details	It takes time to manually reconfirm and changing to another flight	Uncertainty about the application's dependability	Religion of privacy and access of personal information	Stressed when the flights are cancelled due to unavoidable situations	Time consuming process
What steps does a typical person find frustrating, confusing, angering, costly, or time-consuming?							It takes up a lot of space	Stressed because of unexpected flight delay	

Areas of opportunity	Contact a flight assistance representative	Promote the app through airlines, airports and ticket sellers	Introduce a Chatbox in the Application	Promote simple Summary to avoid information overload	May display user reviews for flights
How might we make each step better? What ideas do we have? What have others suggested?					