SOCIAL OR BUSINESS IMPACT

1. To begin, we need information on aircraft business and mass transit in order to develop the airline ticket pricing model just at market level. As a result,

1. we have two datasets: training and testing. The training dataset contains 10,684 items with parameters such as airline, date of travel, source, destination, route, time of departure, estimated time of arrival, length, maximum stop, extra data, and price.

2. The testing data set contains 2,672 items with the following attributes: Airlines

3., Date of Travel, Origin, End, Path, Time Of departure, Arrival Rate, Length, Maximum Stop, and Other Info.

EXISTING SYSTEM/OPEN ISSUES

1. In this article, we provide a brand-new model that might assist the customer in anticipating price trends without relying on official airline information.

2. *Our results showed that suggested model, despite lacking several essential components, such as the number of unsold seats on flights, can forecast trends as well as actual changes in airfare up to the departure dates using public airfare data that is readily available online.*

3. *We also determined the characteristics that have the biggest effects on changes in airfare.* *social and businessAbout the dataset*

Airline: So this column will have all the types of airlines like Indigo, Jet Airways, Air India, and many more.

- *Date_of_Journey: This column will let us know about the date on which the passengers journey will start.*
- *Source: This column holds the name of the place from where the passengers journey will start.*
- *Destination: This column holds the name of the place to where passengers wanted to travel.*

- ***Route:*** *Here we can know about that what is the route through which passengers have opted to travel from his/her source to their destination.*
- ***Arrival_Time:*** *Arrival time is when the passenger will reach his/her destination.*
- ***Duration:*** *Duration is the whole period that a flight will take to complete its journey from source to destination.*
- ***Total_Stops:*** *This will let us know in how many places flights will stop there for the flight in the whole journey.*
- ***Additional_Info:*** *In this column, we will get information about food, kind of food, and other amenities.*
- ***Price:*** *Price of the flight for a complete journey including all the expenses before onboardingimport numpy as np.*
- *A passenger-side predictor proposed by an OTA suggests the best time to buy a ticket so that travelers can make informed decisions. Carriers, on their end, try to find out the optimal price they should set to*

maximize revenue while remaining competitive.

- *In both cases, the task is quite challenging because numerous internal and external factors influence airfares.*

Internal factors include

- *purchase and departure dates,*
- *seasonality,*
- *holidays,*
- *the number of available airlines and flights,*
- *fare class,*
- *the current market demand, and*
- *flight distance.*
- *External factors embrace events going on in the arrival or departure cities – like*
- *concerts,*
- *sports competitions,*
- *festivals,*
- *terrorist attacks,*

- ***natural disasters,***
- ***epidemic outbursts, and***
- ***economic activitie***