Developing a Flight Delay Prediction Model using Machine Learning

An increase in air traffic growth has also resulted in massive levels of aircraft delays on the ground and in the air. These delays are responsible for large economic and environmental losses. The main objective of the model is to predict flight delays accurately in order to optimize flight operations and minimize delays. Using a machine learning model, we can predict flight arrival delays.

WHO are we empathizing with?
Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

Is there any alternate flight?

To inform how accurate would this delay be?

What do they need to DO?
What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

Is there anything i can do to put my time for good use?

If I had known earlier,I would have planned accordingly?

GOAL
What do they THINK and FEEL?

PAINS
What are their fears, frustrations, and anxieties?

Patients with medical emergencies also get affected

couldn't reach the destination on time

Bad wheather,Air traffic issues,Mechanical problems and Staffing shortages

Families and friends also get worried

GAINS
What are their wants, needs, hopes, and dreams?

Improve airline operation

adjust resource allocation

Gives passengers satisfaction

If there is delay in flight,prior information will be send

What do they HEAR?
What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

Dissatisfactory remarks about the airlines

Possible reason for the delay

There are some faults in the flight

What do they SEE?
What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

Help desk members get more information

See what are the facilities available

Newspapers, Magazines readable

What other thoughts and feelings?

Confused

will they refund my money?

will I get an upgrade?

What do they DO?
What do they do today?
What behavior have we observed?
What can we imagine them doing?

Are there any alternates flight?

check if there are anything in the news about the delay

call their colleagues and discuss about the rescheduling of business meeting

What do they SAY?
What have we heard them say?
What can we imagine them saying?

"Sorry for the inconvience"

"Kindly wait in the waiting hall until further notice"