1. Motivation for the idea/description of the problem the application solves

As the world reemerges from pandemic lockdowns and slowly returns to normalcy, an enormous pent-up demand in travel is being unleashed. Being avid explorers ourselves, we understand that flying is an integral part of any trip planning so we are keen to design a web application to help travelers optimize their flying experience. The application will integrate airport, airline and route data from OpenFlight, customer review data from SkyTrax, and flight delay data published by the U.S. government to help users find the most optimal destinations, routes or airline based on a user’s needs and preferences.

1. List of features you will definitely implement in the application

* Pages 1 through 4 describe features that we think are essential to the application

1. List of features you might implement in the application, given enough time

* Page 5 include some features that we will attempt to deploy if there is sufficient time

1. List of pages the application will have and a 1-2 sentence description of each page. We expect that the functionality of each page will be meaningfully different from the functionality of the other pages. (At least 3 pages)

Page 1: Airline Reviews

* Airlines are reviewed across multiple dimensions, we want this page to educate users on which airlines score well and poorly. The questions we want to answer are
* Which airlines are the most reliable?
* Which are each airline’s strengths and weaknesses?
* Which airlines have the broadest coverage?
* If I am a frequent traveler from the US, which airline should I use as my frequent flyer airline?

Page 2: Airport Reviews

* Apart from the in-flight experience, your time in the airport is equally important and this can include check-in, amenities, dining, lounges etc. In NYC for example, travelers have access to LGA, JFK and EWR and anyone that travels frequently can tell you the experiences vary widely across the multiple dimensions. The questions we want to answer are
* Which country has the best airports?
* What are the top airports in a country or city?
* What do people say they like or dislike about a particular airport?
* Is there any correlation between the number of flights/routes and how well an airport scores?

Page 3: Route Explorer

* Airlines constantly adapt to the changing behaviors of travelers and we want to keep people up to date on the possibilities of exploring every part of the world.
* If you are based in Singapore, what are all of the non-stop destinations (countries) available to me?
* If I want to travel between NYC and London, how many routes are available?
* If I only want to fly a specific airline, what is their route map like?
* Which are the most popular routes in the world?
* What are the longest or shortest routes in the world?
* Which routes are most susceptible to delays?

Page 4: Trip Explorer

* When people travel, they usually have an idea of the departure and destination but can be facing tens or hundreds of combinations between airports and airlines. This page intends to recommend the most optimal airport and/or airline based user’s preference such as minimizing delays. As an example, a traveler commuting between NYC and London have at least 20 airlines to choose from that offer flights from one of LGA, JFK and EWR airports in NYC to LHR, LGW, LCY in London.
* If my preference is the airport experience, which routes are best?
* If my preference is in-flight dining, which route should I fly?
* If I care about the airport experience and want to minimize the likelihood of flight delays, which airport/airline combination should I take?
* If I am open to layovers (0, 1 or 2), what combinations can I choose from while minimizing flight distance?

Page 5: Trip Recommender

* This page can be thought of as being similar to the “I’m Feeling Lucky” page on Google. If I am retired or a student on a gap year and don’t have constraints and just want to explore the world, where are some destinations I should consider from an origin city/country.
* If I can take off from Toronto to anywhere in the world, where can I go other than the obvious destinations such as the U.S. and Mexico.
* This page will also give users some optionality to express their preferences.