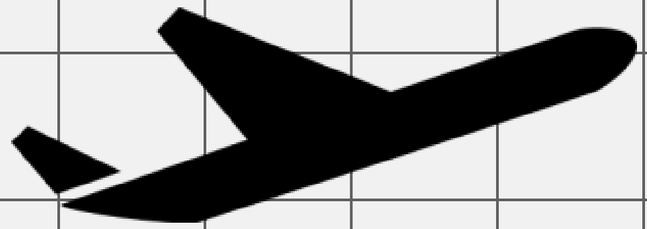
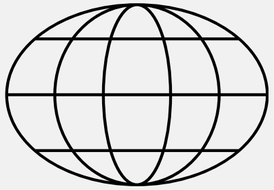


AIRPLANE PASSENGER SATISFACTION

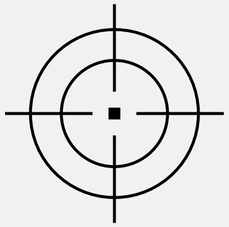
MARTA BAKER
SARAH CHAUVIN
ELIZABETH VIRAMONTES
GABRIELA ZARATE

INSPIRATION & PURPOSE

TRY TO FIND TRENDS IN TRAVEL JOURNEYS

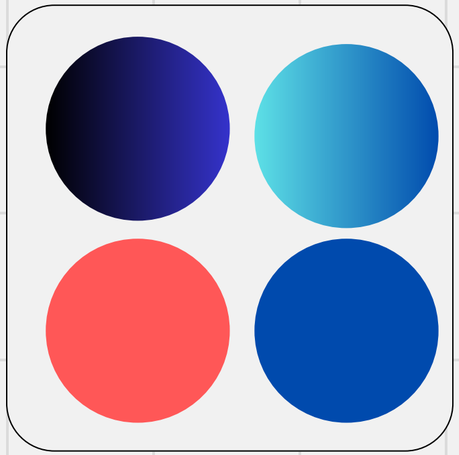


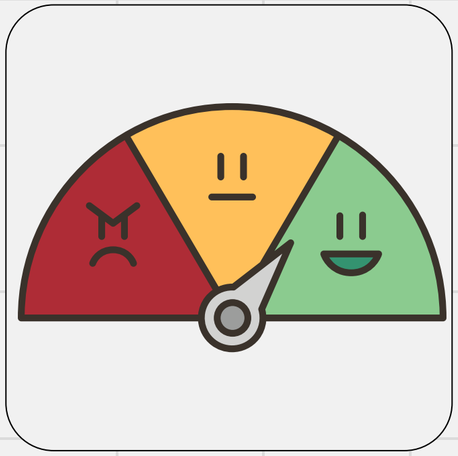
FREQUENCY OF TRAVEL



CREATE A USEFUL MODEL FOR AIRLINES

Predict and explore the trends that make airplane flights seem enjoyable to passengers.





DESIGN CONCEPTS

- Blue, Red, and Black color palette
- Organized and clean design inspired by an airline website
- User friendly web experience and prediction tool

RESEARCH QUESTIONS

CORRELATION BETWEEN LENGTH OF FLIGHT AND SATISFACTION RATING

MOST POPULAR AIRLINES IN THE US AND THEIR SATISFACTION RATING CLASSIFIED BY FEATURES

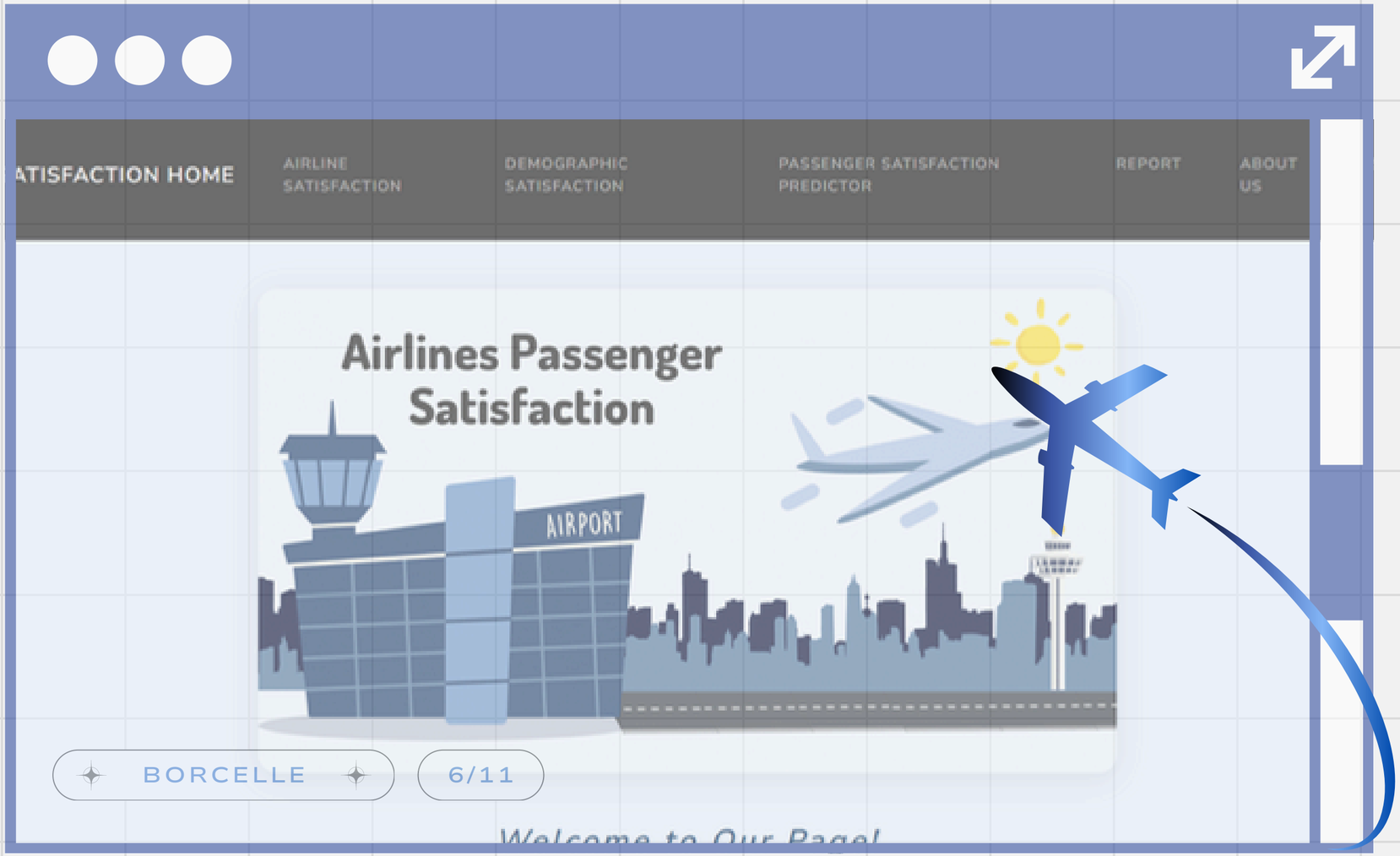
SATISFACTION RATINGS OVER THE YEARS

OVERALL AIRLINE SATISFACTION RATING

CORRELATION BETWEEN AGE AND CUSTOMER SATISFACTION

ARE THERE ANY TRENDS IN CUSTOMER RESPONSES TO SPECIFIC AIRLINES, AND WAS THE AIRLINE ITSELF OR A CERTAIN FEATURE MORE IMPORTANT IN DETERMINING SATISFACTION?

LIVE DEMO



- **78** POSTS
- **345** FORWARDS
- **45468** LIKES
- **2460** SHARES
- **1268** COMMENTS
- **6453** FOLLOWERS
- **13464** SAVES
- **120K** PAGE REACH

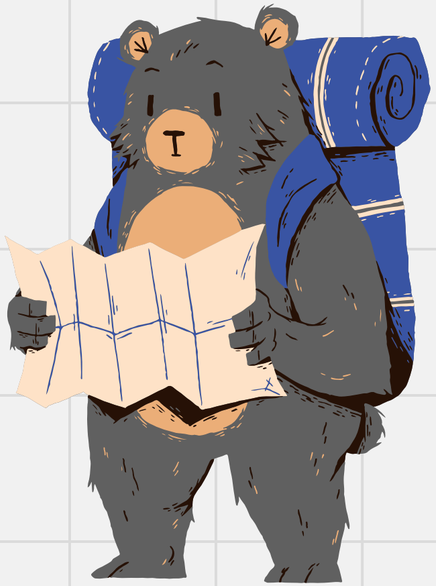
CONCLUSIONS

WE IDENTIFIED A TREND INDICATING A DECLINE IN OVERALL SATISFACTION, LIKELY INFLUENCED BY INCREASING TRAVELER EXPECTATIONS.

THE USE OF FILTERS AND ENGAGING VISUAL ELEMENTS ENHANCE THE USER EXPERIENCE OF OUR WEBSITE.

THE PREDICTOR PLACES A HEAVY EMPHASIS ON TYPE OF TRAVEL AND QUALITY OF IN-FLIGHT WIFI TO DETERMINE FLIGHT SATISFACTION.

- IMBALANCED FEATURE IMPORTANCES
  - NO DATES = CAN'T DETERMINE SKEW IN DATA
- BUSINESS TRAVEL = 2X PERSONAL TRAVEL
  - EMPLOYER $$$
  - ADULTS ONLY
- LOYAL = 5X DISLOYAL
  - INCENTIVES?



LIMITATIONS & BIAS

- DEPLOYMENT SITE: USING 3RD BEST MODEL
- NO LOCATIONS = NO ALGORITHMIC BIAS
- RELIABILITY:
  - MIN AGE 7
  - YOUNGER PEOPLE MORE LIKELY TO ANSWER WITH NEGATIVE EXPERIENCES
  - NO DATA SOURCE

FUTURE WORK

MORE DATA

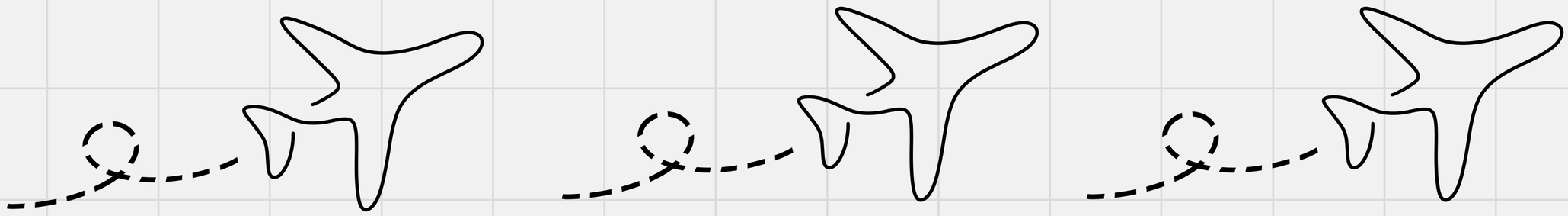
More survey results, including dates, airport locations, and specific airlines.

RESOURCES

Better information on how the data was obtained to avoid unreliable information in the data.

IMPROVE MODEL

Use the LightGBM model that was the best model in a more robust web service



THANK YOU