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**Team Members**

| **Name** | **Email** | **Phone Number** |
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| Deepankshi |  |  |
| Brittanie Jones |  |  |
| Waheed Haidaryar |  |  |
| Edward Morrow |  |  |

**Background**

* Building a web-scraping tool to collect data from the Southwest airlines website for trips that are taken frequently. This is intended for providing a not-for-profit way of getting information from Southwest airlines for the purpose of optimizing the customer experience.

**Motivation**

As a traveler who frequently flies the same itinerary to visit family, it will be nice to have a tool that can assist in finding the optimal times to schedule visits.

**Questions to answer**

* Which days are the best days for booking your flights with Southwest Airlines?
* How far in advance does someone have to buy tickets in order to get a good deal?
* Which day of the week is the best day to purchase tickets? (Southwest regularly holds sales on Tuesday, Wednesday, and Thursday, but is that really the best time)

**Tools/Modules to use**

* Python
* Pandas
* Selenium
* Flask
* PostgreSQL
* AWS
* Javascript
* D3
* leaflet

**Data sets to use**

* Data from the Southwest Airlines website

**Tasks Breakdown**

* Edward: Scraper to get the data (Python/Flask/Selenium)
* Brittanie: Data cleaning (Python)
* Deepankshi: Data storage (SQL/AWS)
* Waheed: Visualization (Javascript/D3/leaflet)
* Everyone (stretch goal): ML models to identify optimal buy times (sklearn)

**Tasks and timeline**

|  | **Date** | **Task** | **Notes** |
| --- | --- | --- | --- |
| **Seg-1.1** | **June 14** |  | Group Roster and Project Idea Proposal Due |
| **Seg-1.2** | **June 15** |  |  |
| **Seg-1.3** | **June 16** |  |  |
| **Seg-1.4** | **June 17** |  |  |
| **Seg-1.5** | **June 18** |  |  |
| **Seg-1.6** | **June 19** |  |  |
| **Seg-1.7** | **June 20** |  |  |
| **Seg-2.1** | **June 21** |  | 1st Segment Due |
| **Seg-2.2** | **June 22** |  |  |
| **Seg-2.3** | **June 23** |  |  |
| **Seg-2.4** | **June 24** |  |  |
| **Seg-2.5** | **June 25** |  |  |
| **Seg-2.6** | **June 26** |  |  |
| **Seg-2.7** | **June 27** |  |  |
| **Seg-2.8** | **June 28** |  |  |
| **Seg-2.9** | **June 29** |  |  |
| **Seg-2.10** | **June 30** |  |  |
| **Seg-2.11** | **July 1** |  |  |
| **Seg-2.12** | **July 2** |  |  |
| **Seg-2.13** | **July 3** |  |  |
| **Seg-2.14** | **July 4** |  |  |
| **Seg-3.1** | **July 5** |  | 2nd Segment Due |
| **Seg-3.2** | **July 6** |  |  |
| **Seg-3.3** | **July 7** |  |  |
| **Seg-3.4** | **July 8** |  |  |
| **Seg-3.5** | **July 9** |  |  |
| **Seg-3.6** | **July 10** |  |  |
| **Seg-3.7** | **July 11** |  |  |
| **Seg-4.1** | **July 12** | Finalize the project  Mock Presentation | 3rd Segment Due |
| **Seg-4.2** | **July 13** |  |  |
| **Seg-4.3** | **July 14** | PROJECT PRESENTATION | 4th Segment and  Self Assessment Due |

**Presentation**

Divide your presentation steps to tasks and assign it to members.

Suggested by:  
Khaled Karman