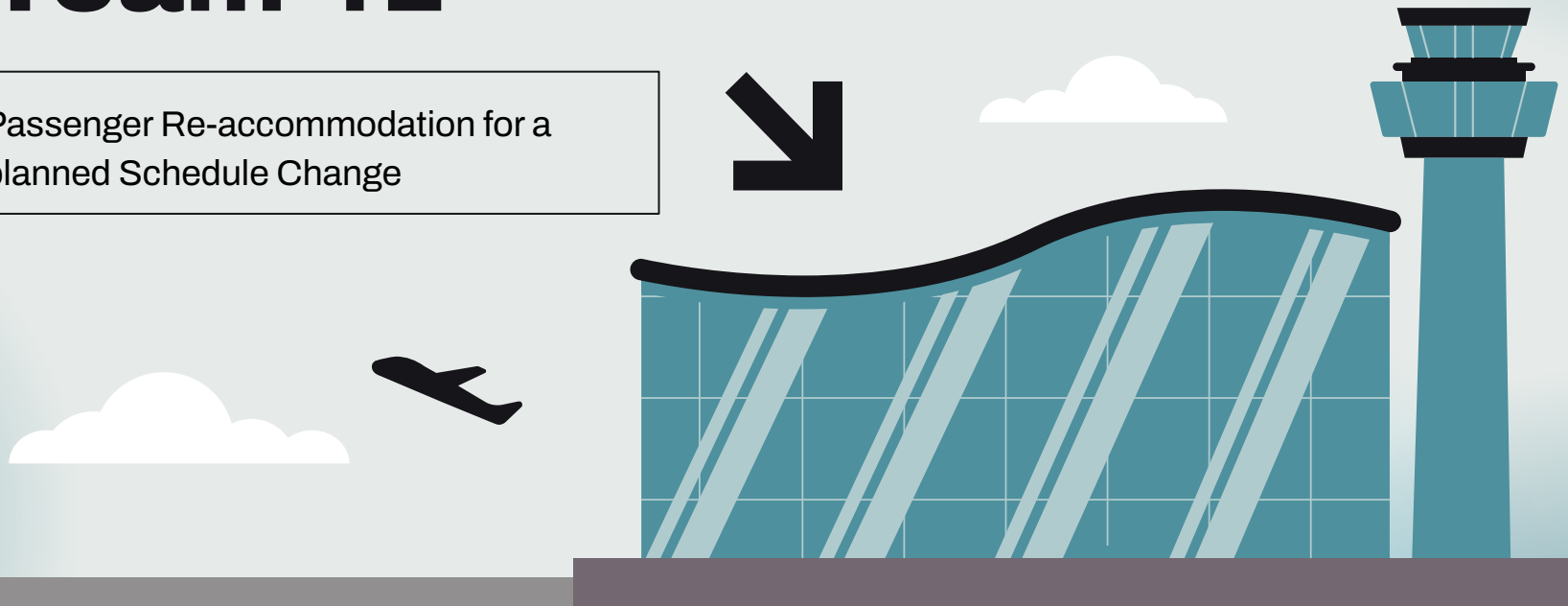
Mphasis Optimization Team 41

Passenger Re-accommodation for a planned Schedule Change



Agenda

- Goals
- Our Approach
- Learnings

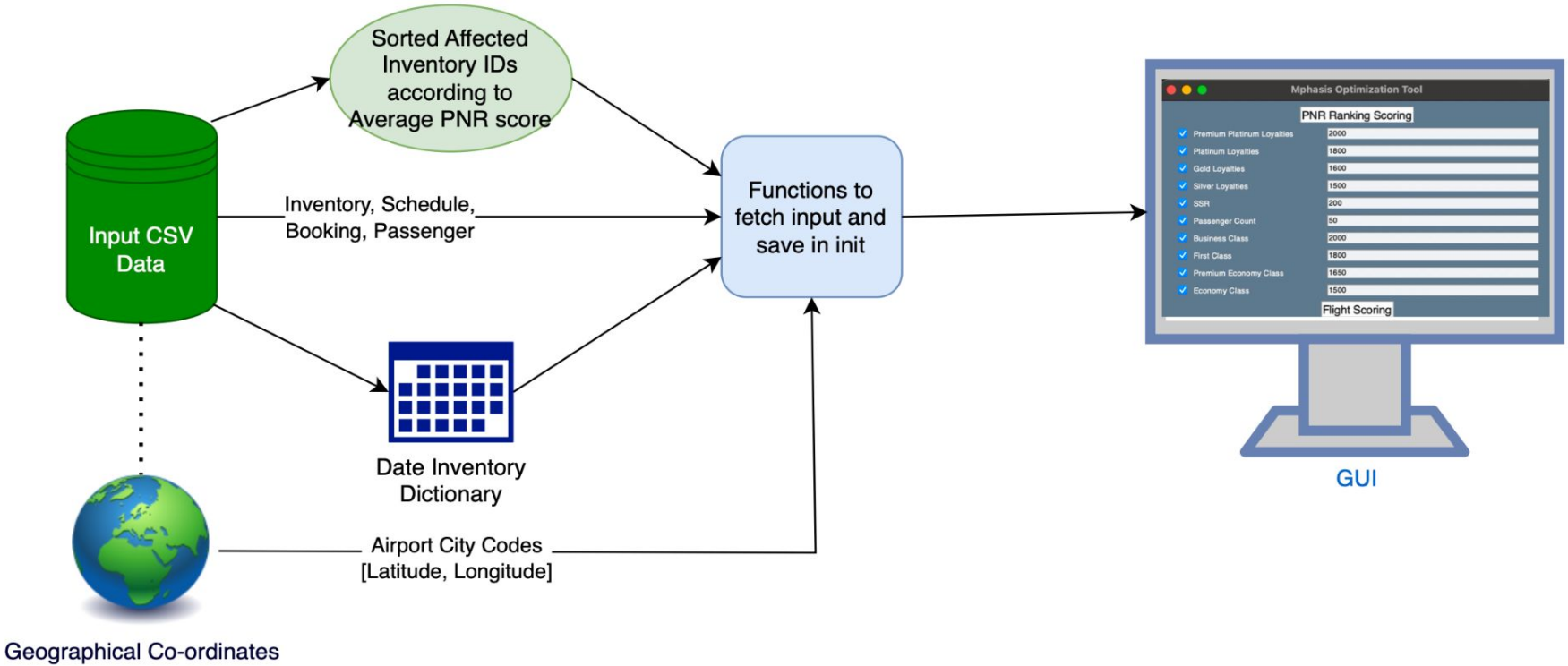
Goals

- Optimize alternate flights for impacted passengers
- Prioritizing based on
  - Special service requests
  - Loyalty levels
  - Class of cabin
  - # of passengers
- Rank solutions based on
  - Source and destination airport real time distances
  - Arrival and departure time delays

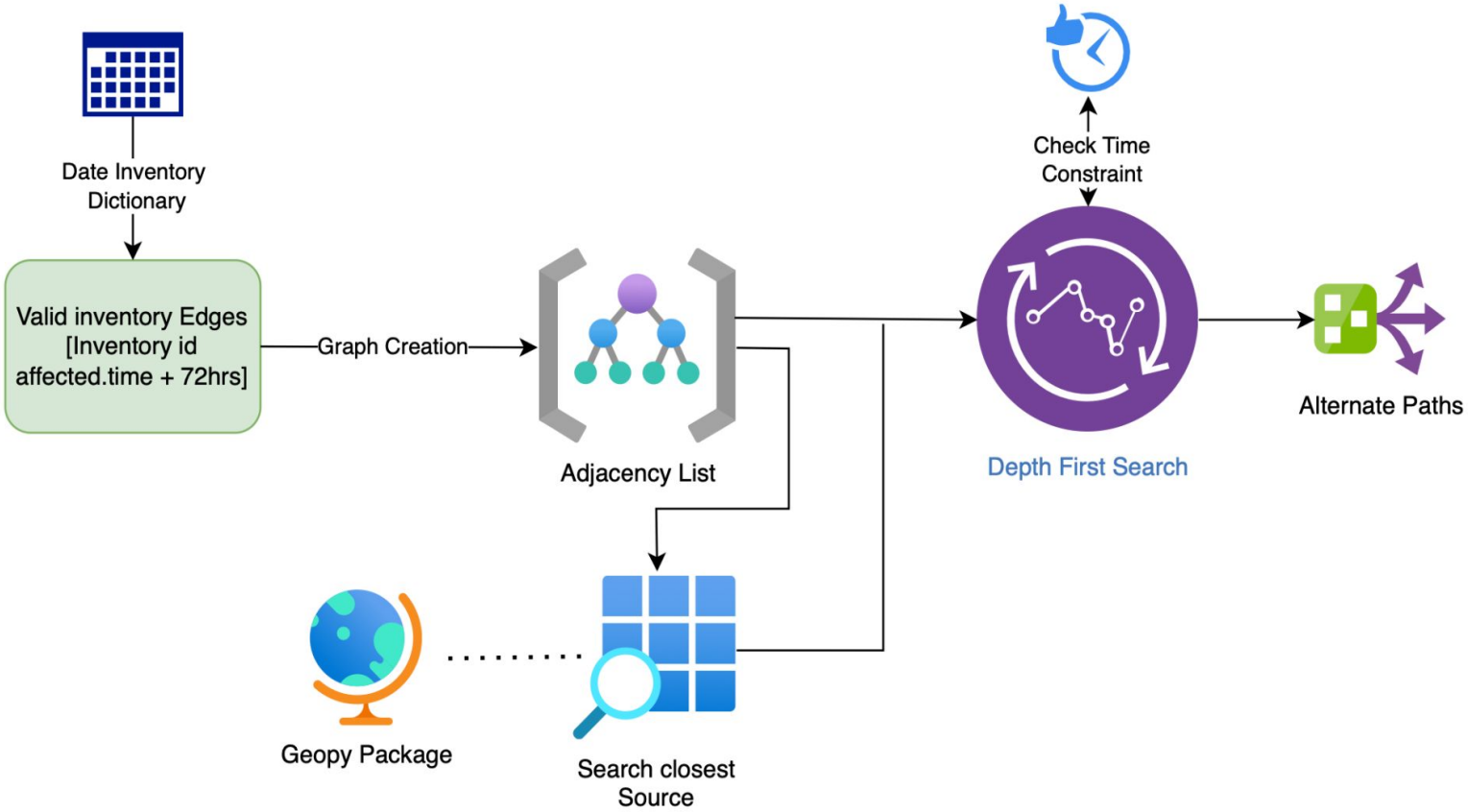
Our Approach

- Pre-processing
- Find Alternate Paths
- Flight Scoring
- Passenger Scoring
- Accommodation
- Output + Bulk Mailing

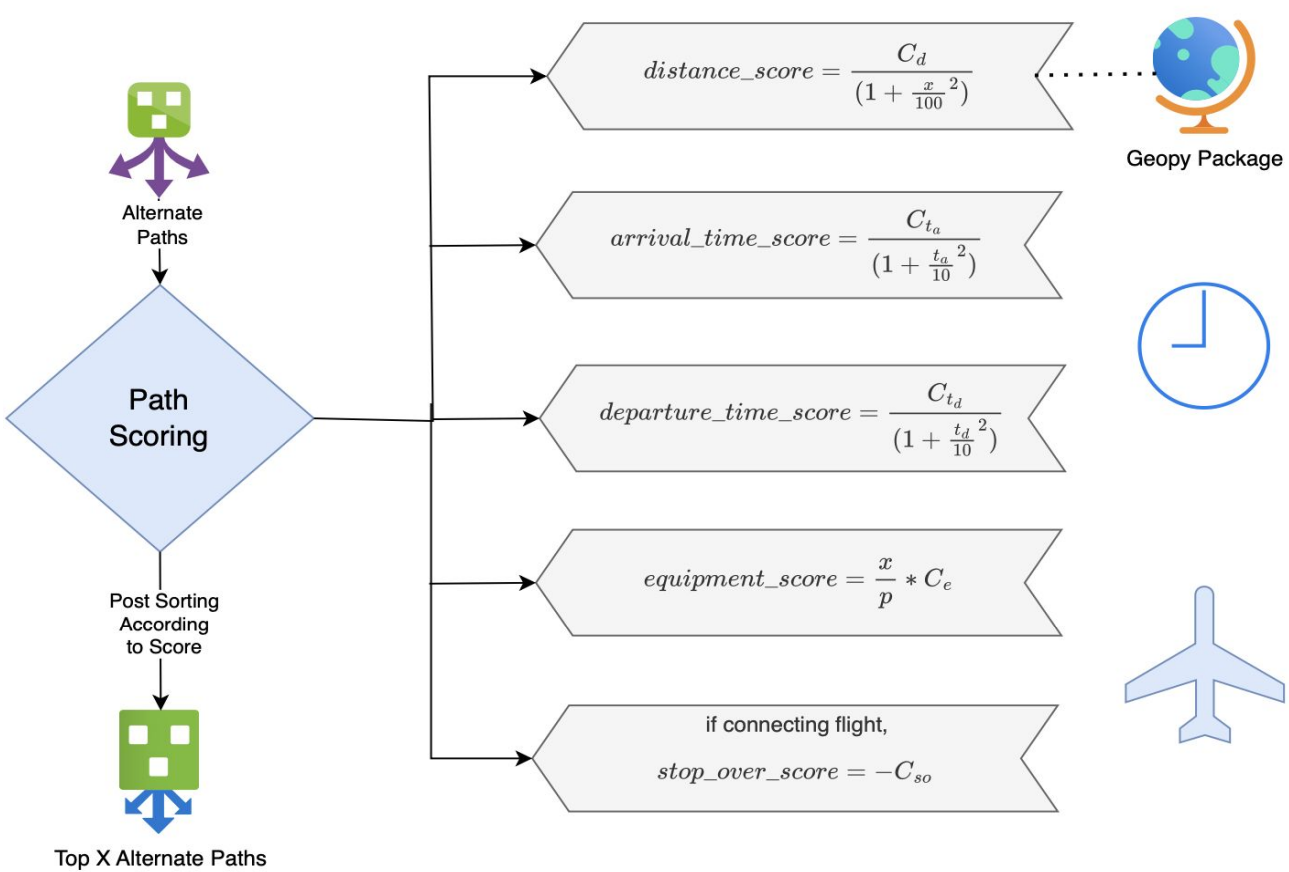
Pre-processing



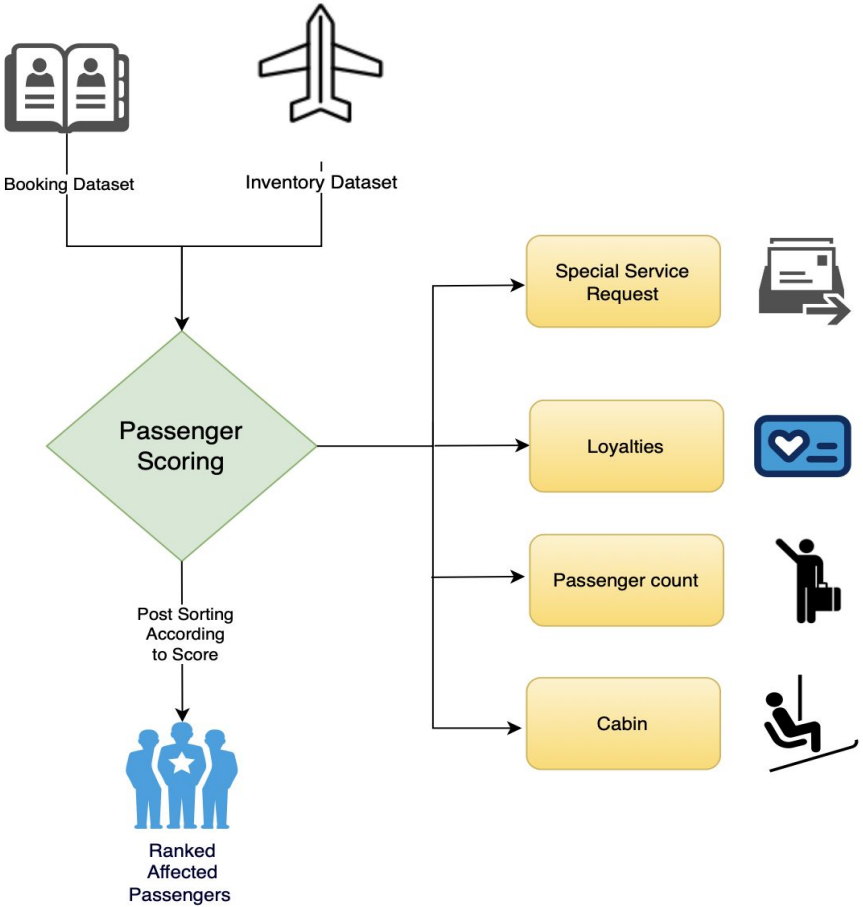
Find Alternate Paths



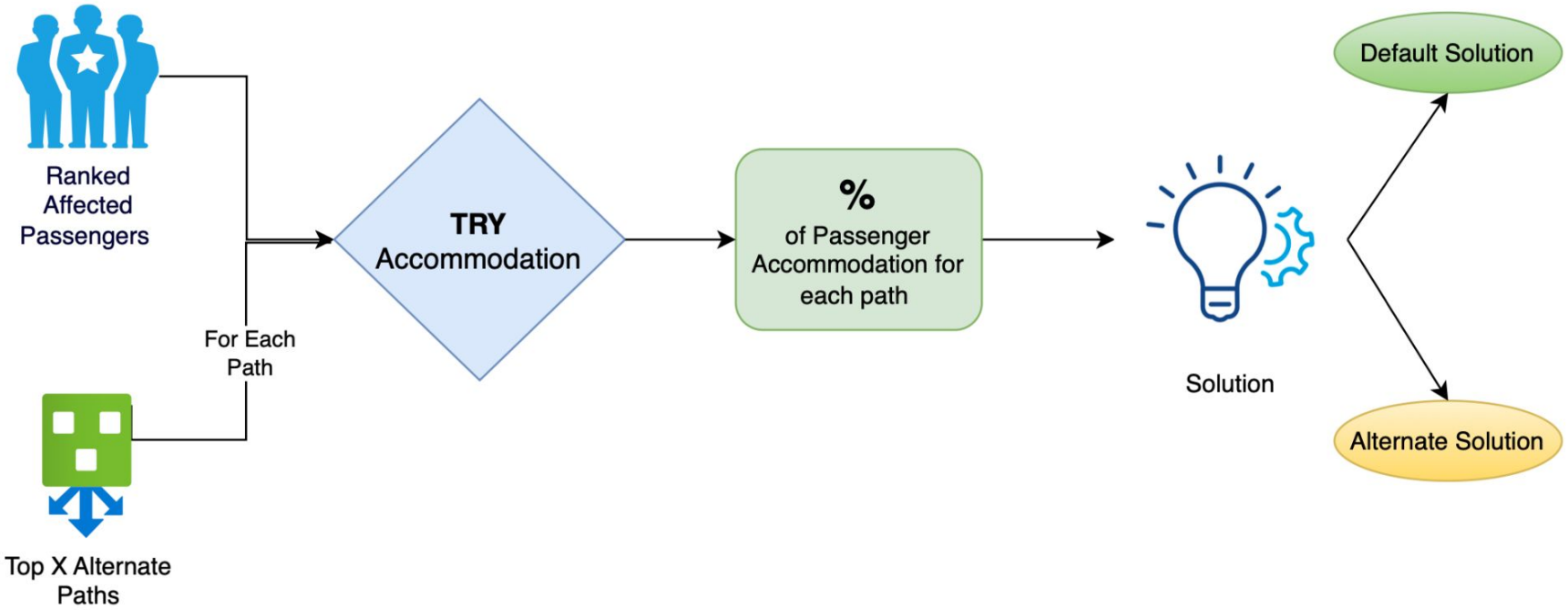
Flight scoring



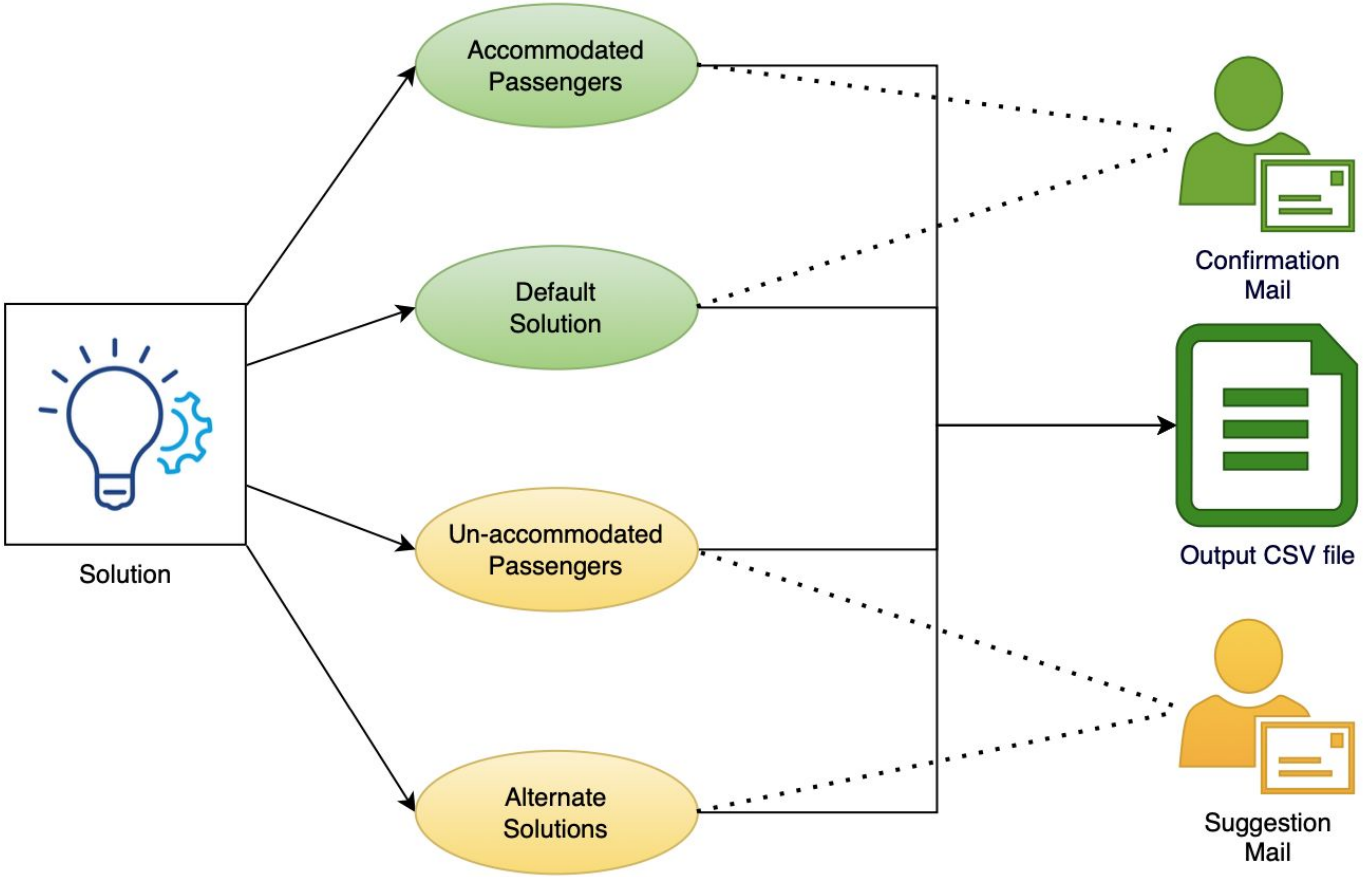
Passenger Scoring



Passengers Accommodation



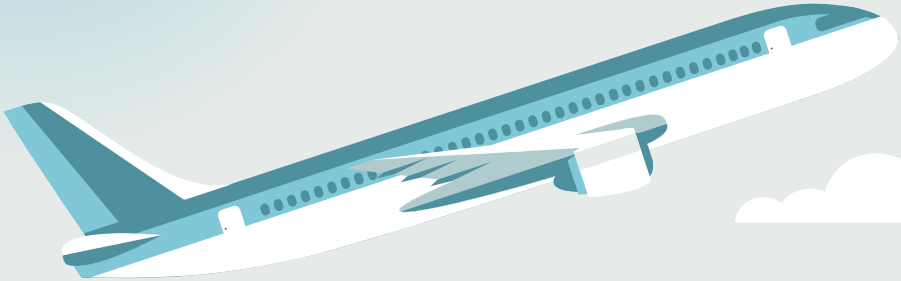
Solution Output and Bulk Mailing



Remarks

- ~ 30 Affected flight solutions found / second (4 core CPU)
- One time pre-processing, Faster searching
- Assumption - # of connecting flights have a low maximum limit: Constant order depth first search
- Flexibility in PNR & Flight scoring
- Continuous scoring functions - Accurate score for filtering the top paths

DEMO



Thank you!

Open for questions,