1 Algorithm

First from the cancelled flights we get the affected passengers and remove the cancelled flights from the list of flights to get the available flights. We also get the initial number of passengers in each of the available flights. Then from the networkx library we declared a MultiDiGraph. We then added all landing stations as a node to the graph and each edge contains other relevant details. Then we write a function to find the path using BFS algorithm from source to target with a number of additional conditions like the number of layovers to be less than 3 and the number of passangers added is less than the capacity of the fight also the difference between the departure time of the past flight and arrival time of the previous flight should be less than a given minimum layoff time. Then for each of the affected customers we call the function and get the relevant data required in the questions and then incrementing the number of passengers by 1. We are then creating the csv files we were required to do and hence completing the task.