

Airport has a grid of tiles with 2D vectors.

Class of structor Tile :

label_zone , x, y, pollution , population, function

Class Airport:

Grid vector<vector<tiles>>

Initiate Grid /* Load init state → read from csv file and config file */

Class simulator:

1- Initiate Airport Environment

2- Run simulation function: //Calls all other functions. Do Updates and Print Airport Environment

A - A Loop that updates and print airport layout + Updates Tiles

B - Orders and updates the tiles while keeping track of the airport's resources.

C - Returns false if no more room to grow.

3- Updates the count for workers, goods, future workers & future goods.

a- Domestic zones make 1 worker per population.

b- International zones use 1 good and 1 worker per population.

c- Cargo zones make 1 good and use 2 workers per population.

Cargo tiles need 2 workers per population.

Updates { Domestic | International | Cargo } keeps track of workers & goods

Calculate Total Populations

Calculation Total Pollutions

Simulate Pollution Spread :

Per Current Tiles: loop over adjacent Tiles and update the Current Tile

A cell produces pollution equal to its population, and pollution spreads to all adjacent cells at a rate of one less unit of pollution per cell away from the source