Data Challenge 1 Grading Schema

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1 in plain text

We have 2 points for valid path per test case, and 0.5 performance score based on your ranking among your fellow students in terms of number of queries, path length (test case 1- 20) and number of queries, geo distance (test case 21-40).

For example, if you have valid path for all test cases, then you get 2*40 = 80 base points; if you also rank the first in terms of number of queries, path length, distance calculated with euclidean distance and geo distance, you will get 0.5*40 = 20 points for performance, and 100 points in total as your final score.

In terms of calculating the distance score for Task 2. We used two metrics: euclidean distance and geo distance. And we only keep the higher one as your score.

In terms of ranking, there is no tie. If there are 5 students ranked the 1st, the 6th students will be placed as 2nd instead of 6th. In this way, we are generously giving performance score to students who rank relatively close to the bottom. Also, only students with valid path will enter the ranking.

2 pseudo code for generating your final score

for each test case from 1 - 40:

nOfQuery_rank <− rank UNIs based on number of queries
pathLength_rank <− rank UNIs based on path length
euclideanDist_rank <− rank UNIs based on euclidean distance
geoDist_rank <− rank UNIs based on geo distance

for each uni:
if the path is not valid: base_point = 0
else: base_point = 2 {

query_based_performance_score = $0.5 * (bottom\_rank - your\_rank + 1)/bottom\_rank)$ in nOfQuery_rank
query_based_total_score = query_based_performance_score + base_point

length_based_performance_score = $0.5 * (bottom\_rank - your\_rank + 1)/bottom\_rank)$ in pathLength_rank
length_based_total_score= length_based_performance_score + base_point

eucli_dist_based_performance_score = $0.5 * (bottom\_rank - your\_rank + 1)/bottom\_rank)$ in euclideanDist_rank
eucli_dist_based_total_score= eucli_dist_based_performance_score + base_point

geo_dist_based_performance_score = $0.5 * (bottom\_rank - your\_rank + 1)/bottom\_rank)$ in geoDist_rank
geo_dist_based_total_score= geoi_dist_based_performance_score + base_point}

if test case is in 1 - 20:
your_score = query_based_total_score * 0.4 + length_based_total_score * 0.6
else if test case is in 21 - 40:
your_score = query_based_total_score * 0.4 + max(eucli_dist_based_total_score, geo_dist_based_total_score) * 0.6

you_final_score = sum over (your_score) for each test case