



IEEEExtreme 10.0 > Food Truck

Food Truck

locked

by IEEEExtreme

Problem	Submissions	Leaderboard	Discussions
---------	-------------	-------------	-------------

Submitted 3 days ago • Score: 59.00

Status: Accepted

✓ Test Case #0	✓ Test Case #1	✓ Test Case #2
✓ Test Case #3	✓ Test Case #4	✓ Test Case #5
✓ Test Case #6	✓ Test Case #7	✓ Test Case #8

Submitted Code

Language: Python 3 [Open in editor](#)

```
1 from math import radians, cos, sin, asin, sqrt
2 from datetime import datetime
3 import math
4
5
6 def haversine(lon1, lat1, lon2, lat2):
7     lon1, lat1, lon2, lat2 = map(radians, [lon1, lat1, lon2, lat2])
8     dlon = lon2 - lon1
9     dlat = lat2 - lat1
10    a = sin(dlat/2)**2 + cos(lat1) * cos(lat2) * sin(dlon/2)**2
11    c = 2 * asin(sqrt(a))
12    r = 6378.137
13    return c * r
14
15 lati, longi = map(float, input().split(", "))
16 radius = float(input())
17 input()
18 date_format = "%m/%d/%Y %H:%M"
19 users = {}
20 try:
21     while True:
22         data = input().split(",")
23         new_date = datetime.strptime(data[0], date_format)
24         phone = data[3]
25         if phone in users:
26             old_date = datetime.strptime(users[phone][0], date_format)
27             if new_date > old_date:
28                 users[phone] = data
29         else:
30             users[phone] = data
31 except EOFError:
32     pass
33 near_users = []
34 for phone, data in users.items():
35     latf = float(data[1])
36     longf = float(data[2])
37     distance = haversine(longi, lati, longf, latf)
38     if distance <= radius:
39         near_users.append(phone)
40 print(" ".join(sorted(near_users)))
41
```