# Cab Booking Problem

### Problem Statement:

We want to build a cab booking platform to allow a rider to book a cab.

### Details:

\* The location is represented as a (x, y) coordinate.

\* Distance between two points (x1, y1) and(x2, y2) is sqrt((x1-x2)^2 + (y1-y2)^2)

\* Platform has decided upon maximum distance a driver has to travel to pickup a rider.

\* A cab has only 1 driver.

\* Sharing of cab is not allowed between riders

\* There is a single type of cab

Please build an application that exposes following features to riders and drivers.

\* Register a rider.

\* Register a driver/cab

\* Update a cab's location

\* A driver can switch on/off his availability

\* A rider can book a cab

\* Fetch history of all rides taken by a rider.

\* End the Trip

### Expectation from this round

\* Code should be extensible.

\* Clean professional level code.

\* Functional Completeness including good modelling.

\* User Identification but not authentication.

\* Backend Database is optional. However modelling should be complete.