

**Design a Call taxi booking application (Zoho Corporation 3<sup>rd</sup> Round Question).**

1. There are n number of taxi's. For simplicity, assume 4. But it should work for any number of taxi's.
2. There are 6 points(A,B,C,D,E,F).
3. All the points are in a straight line, and each point is 15kms away from the adjacent points.
4. It takes 60 mins to travel from one point to another.
5. Each taxi charges Rs.100 minimum for the first 5 kilometers and Rs.10 for the subsequent kilometers.
6. For simplicity, time can be entered as absolute time. Eg: 9hrs, 15hrs etc.
7. All taxi's are initially stationed at A.
8. When a customer books a Taxi, a free taxi at that point is allocated.
9. If no free taxi is available at that point, a free taxi at the nearest point is allocated.
10. If two taxi's are free at the same point, one with lower earning is allocated.
11. Note that the taxi only charges the customer from the pickup point to the drop point. Not the distance it travels from an adjacent point to pickup the customer.
12. If no taxi is free at that time, booking is rejected.