

## Input Parameters

① Firstly battery estimate would be

→ 70% of the best run time.

→ or use M2 to study avg lifespan of 2 years & then decide

② Time for charging → 0.8 (X)

(To be found out eff) {x for full charge}

→ I would make you pay more if I think you can pay more.

→ which type of day it is (festival etc.)

→ weather forecast

Scheduled

On-priority

→ weight  
(extra are ch) → type for that

## Pricing (Dynamic)

→ Order time or scheduled time to deliver.

if b/w peak hours then multiple accordingly


[Ola Uber's Dynamic Pricing study]

Factors →

→ km

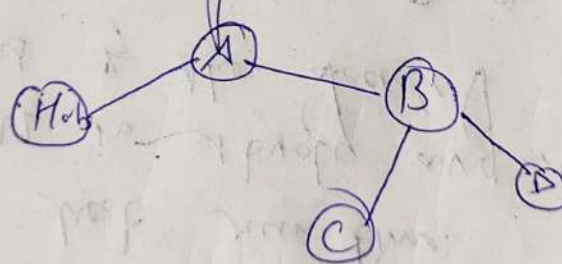
→ ~~time~~ In gen traffic intensity at that time  
→ time of delivery

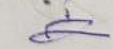


- An algorithmic fit but for belonging the  
 items we would deliver  
 → their distances  
 → max utilization of storage space  
 → खतरा प्राप्त → but weights differ extremely  
 in sizes   
 → so, a trade off b/w how many trips  
 simultaneously ensuring max space utilization.
- 

→ ~~What~~ should ~~hub~~ always be a central point?

What if →



At B → I got order  
 to deliver at D  
 & now I have space  
 left, & D is  
 really close then  
 why not?  




→ Multi Pickup & Multi Drop (Obviously including factors on battery, storage speed)

→ Optimising the delivery percentage (incentives for driver)

→ (Governing the order of by day also suggested)

→ (Didn't roam here & there)

→ How many deliveries / pickups faked?

↳ not available or similar excuses.

★ (Minimising overall distance)

→ In house navigation system  
→ no need to select one after another



Route planning → distance  
→ rider capacity  
→ geolocation  
→ traffic  
→ geospatial context  
→ weather

Clusters →  $\frac{x}{y} + y$   
↓  
to deliver → estimated space of how much to pickup

enroute → if a parcel gets added / pickup cancelled?



- Maximizing on time delivery percentage (i.e. within scheduled pickup)
- Min distance travelled (includes going to charging station & all moving)
- Min wait time (when charging / swapping)
- Maximizing profit { correct pricing of items } based on diff types

→ ~~if~~ → a scanner that sees the object while pickup & gives the estimate  
 → I know not physically visible  
 → so give the range to customer  
 → & then at pickup point, tell actual cost.

(including how many, we have, volumetric weight + to go distance etc).



# Breeding

Routing  
accepts &  
of binimization

EV charging  
stations;

% of  
charging at  
each one  
or  
how frequently

Objective → Broken to simply min kms required.

(Use vehicles → sub a parameter)

Dynamic locations

[Not possible]

↓  
[like possible  
but requires  
intensive  
flux of  
capital]



## User

- Book Parcel Pickup
- Select a Pickup time Range
- Select type of product
  - ↳ Delicate (Handle with care)
  - ↳ { some other }
- Approx weight
- Add address & more [upload location OR]
- show → Price Range

Other features like → transaction, wallet integration, Contact,

## Driver

- Log In Time | for the day
- ~~Log Out~~ time
- Vehicle health notified at all times [input pop up / & automatic dial to a certain place in case of mishap]
- Delivery verification
- Current delivery tracking
- Call directly to the relevant one after for that delivery
- Next charging station / how much when to charge
- In app entertainment for waiting?
- Next location
- Gamified features like R points / vouchers for delivery.

## Depo

### Vehicle

- ↳ Licenses
- ↳ Contracts copy
- ↳ Battery status
- ↳ Spare Batteries (some other parts)

### Package scanning & algorithms

- ↳ Scanned algorithm for package height, width, length, basically volumetric
- ↳ Select & decide route, total packages driver & like.

For actually industry level application, robot picking up correct dimensions would be required.