



# EV CHARGER

## EV CHARGER BOOKING SYSTEM

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# INTRODUCTION

EV CHARGER BOOKING SYSTEM, A SOLUTION FOR ELECTRIC VEHICLE CHARGING. THE EV CHARGER BOOKING SYSTEM IS A HELPFUL SOLUTION FOR CHARGING ELECTRIC VEHICLES. WITH THIS PLATFORM, PEOPLE WHO OWN EV PRIVATE CHARGERS CAN SHARE THEM WITH THE PUBLIC, MAKING IT EASIER FOR EVERYONE TO CHARGE THEIR ELECTRIC VEHICLES. EVEN INDIVIDUAL EV OWNERS, LIKE THOSE FROM SCHOOLS, UNIVERSITIES, MALLS, AND SIMILAR PLACES, CAN JOIN IN BY OFFERING THEIR CHARGERS TO THE PUBLIC.

THIS SYSTEM NOT ONLY SUPPORTS PRIVATE CHARGER OWNERS BUT ALSO ENCOURAGES DIFFERENT PEOPLE AND PLACES TO WORK TOGETHER. BY LETTING CHARGERS BE SHARED IN VARIOUS LOCATIONS, THE PLATFORM HELPS MAKE ELECTRIC VEHICLE CHARGING MORE AVAILABLE AND WIDESPREAD, MEETING THE IMPORTANT NEED FOR ACCESSIBLE CHARGING OPTIONS.



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## SUMMARY

| Sr.no | Paper Title   | Publisher                     | Year            | Take-away points   |
|-------|---|-------------------------------|-----------------|--|
| 1     | N.Rampal, "Poor Charging Infrastructure, high prices' - what's putting the brakes on India's 2030 EV target | N.Rampal                      | 18 August, 2022 | The problem with our charging infrastructure               |
| 2     | 3 Classifications of EV Charging Infrastructure You Should Know About                                       | Griden Technologies Pvt. Ltd. | N/a             | Types of chargers that can be used                         |
| 3     | AP Agency, "Clean energy gains a foothold in India, but coal still rules," Economic Times                   | A P                           | 23 January      | Why private and semi-public chargers should be pushed more |

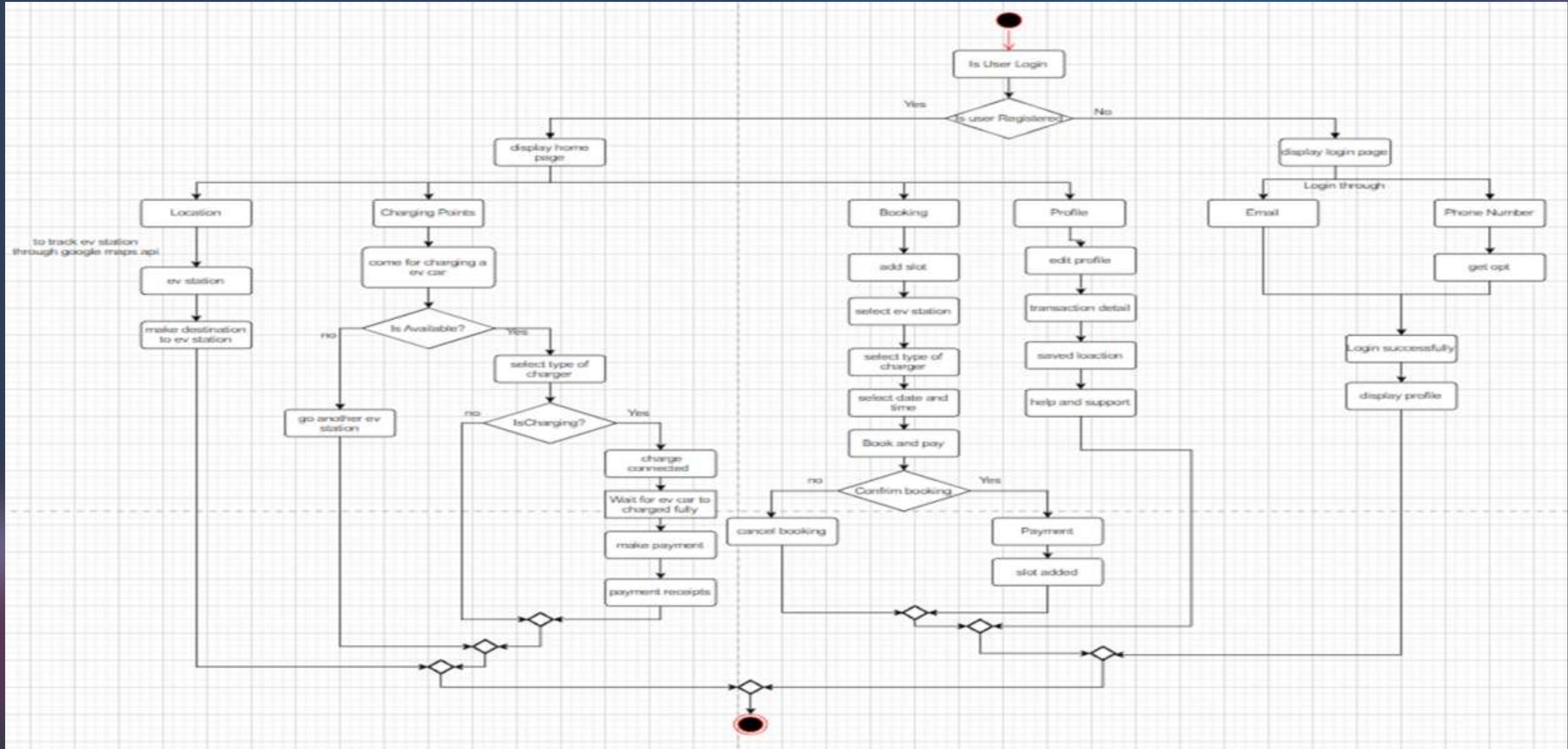


## PROBLEM STATEMENT

THE EV CHARGER BOOKING SYSTEM IS HERE TO TACKLE THE BIG PROBLEM OF NOT HAVING ENOUGH PLACES TO CHARGE ELECTRIC VEHICLES IN INDIA. OUR GOVERNMENT IS WORKING ON IT, BUT IT TAKES A LOT OF TIME. SO, WE CAME UP WITH A SOLUTION: OUR APP LETS REGULAR PEOPLE WHO OWN ELECTRIC VEHICLES AND THOSE WHO HAVE SEMI-PUBLIC CHARGERS SHARE THEM WITH EVERYONE. THIS WAY, WE CAN DEAL WITH THE ISSUE OF NOT HAVING MANY PLACES TO CHARGE ELECTRIC VEHICLES.

WE'RE USING THE CHARGERS THAT ARE ALREADY THERE TO FILL THE GAP BETWEEN THE GROWING NEED FOR CHARGING SPOTS AND THE SLOW PROGRESS IN BUILDING MORE CHARGING STATIONS. OUR PLATFORM IS A QUICK AND PRACTICAL FIX TO MAKE IT EASIER FOR ELECTRIC VEHICLE OWNERS TO FIND RELIABLE PLACES TO CHARGE THEIR VEHICLES. LET'S WORK TOGETHER TO MAKE ELECTRIC VEHICLE CHARGING MORE ACCESSIBLE AND HASSLE-FREE!

# FLOWCHART





# IMPLEMENTATION DETAILS

- **USER REGISTRATION AND AUTHENTICATION:** ENSURES SECURE ACCOUNT CREATION AND VERIFICATION, ALLOWING ONLY AUTHORIZED USERS TO ACCESS THE PLATFORM.
- **CHARGER LISTING:** ENABLES PRIVATE CHARGER OWNERS TO SHOWCASE THEIR STATIONS, PROVIDING USERS WITH ESSENTIAL DETAILS FOR INFORMED SELECTIONS.
- **BOOKING MANAGEMENT SYSTEM:** ALLOWS USERS TO EASILY BROWSE AND RESERVE CHARGERS, OFFERING REAL-TIME UPDATES AND STRAIGHTFORWARD BOOKING CONTROLS.
- **PAYMENT INTEGRATION:** SEAMLESSLY INCORPORATES SECURE PAYMENT GATEWAYS FOR RELIABLE AND CONFIDENTIAL TRANSACTIONS.
- **GEOLOCATION AND MAP INTEGRATION:** FACILITATES EASY CHARGER LOCATION DISCOVERY THROUGH GEOLOCATION SERVICES AND VISUAL REPRESENTATION ON A MAP, ENHANCING USER ACCESSIBILITY.



# TECH STACK INVOLVED

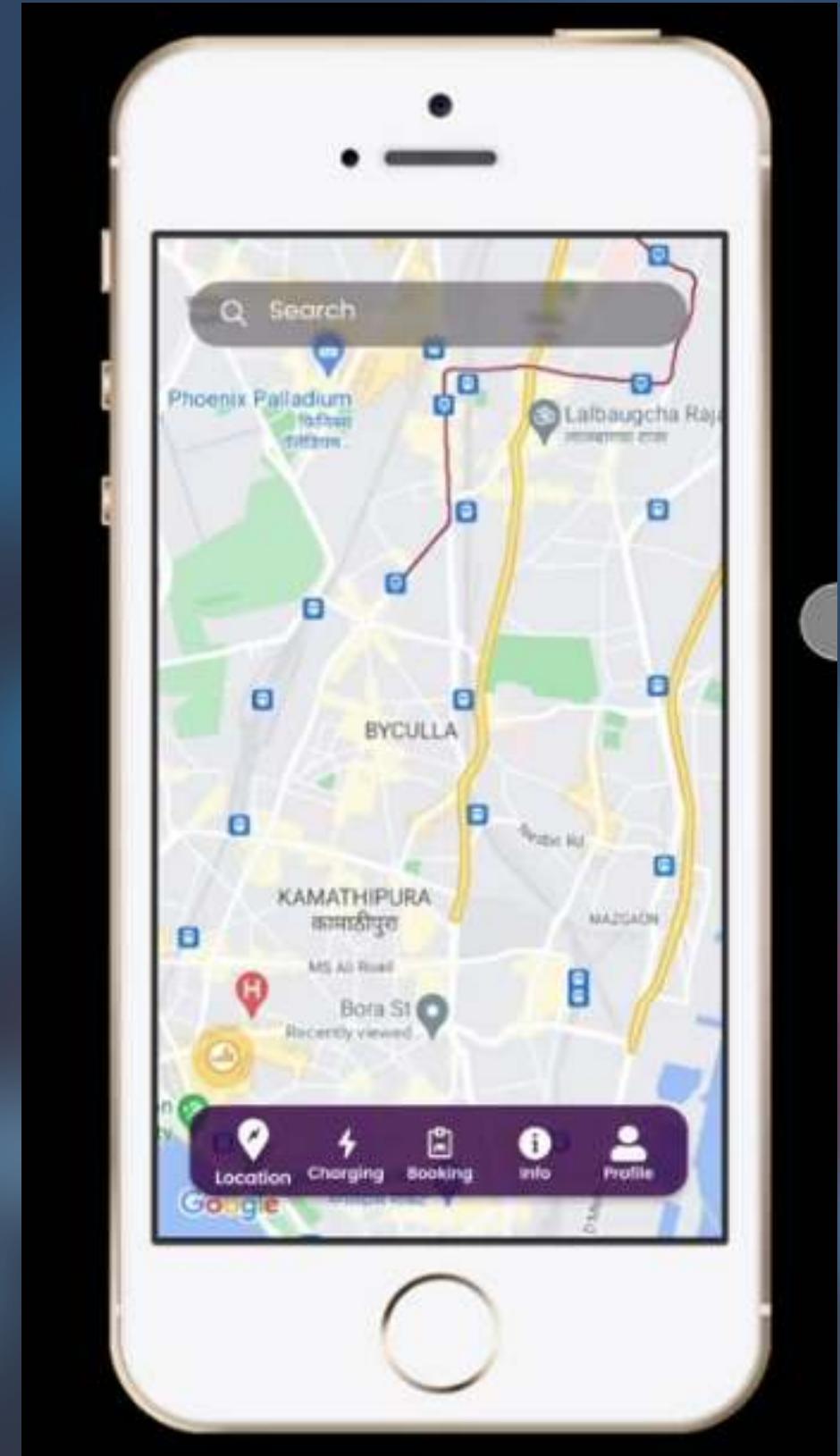
- FRONTEND: XML AND JAVA
- BACKEND:
  - DATABASE: GOOGLE FIREBASE
  - AUTHENTICATION: JSON WEB TOKENS (JWT)
- MOBILE APP DEVELOPMENT:
  - PLATFORM: ANDROID STUDIO (FOR ANDROID)
  - LANGUAGE: JAVA
- GEOLOCATION SERVICES:
  - API: GOOGLE MAPS API





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# UI DEMONSTRATION



[DOWNLOAD EVCHARGER APP](#)



## CONCLUSION

1. THE EV CHARGER BOOKING SYSTEM OFFERS A PRACTICAL SOLUTION TO INDIA'S LIMITED CHARGING INFRASTRUCTURE.
2. THROUGH ITS USER-FRIENDLY APP, THE PLATFORM ENABLES HOME EV OWNERS AND SEMI-PUBLIC CHARGER OPERATORS TO SHARE THEIR STATIONS, ENHANCING OVERALL CHARGING CONVENIENCE.
3. THE SYSTEM FOSTERS COLLABORATION AND COMMUNITY INVOLVEMENT, ACTIVELY CONTRIBUTING TO THE EXPANSION OF THE CHARGING NETWORK.
4. LOOKING AHEAD, THE PROJECT ANTICIPATES FURTHER GROWTH AND POTENTIAL PARTNERSHIPS TO CONTINUE IMPROVING THE CHARGING INFRASTRUCTURE IN INDIA.



## FUTURE WORK

1. PORT TO REACT NATIVE TO MAKE APP CROSS PLATFORM
2. OTHER LOGIN OPTIONS
3. IMPLEMENTING FORMS TO CHARGER INFO
4. ADDING AVAILABLE DATA TO MAPS
5. CREATING A BOOKING MANAGEMENT SYSTEM
6. ADDING PAYMENT GATEWAY





## REFERENCES

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THANK YOU