**WORKERS MANAGEMENT SYSTEM**

**ABSTRACT**

* The major problem today we are facing is to identify the skilled person to do some small sized works to larger works in our home or office in metropolitan cities to other level cities. In other case, many of the skilled workers are not getting frequent jobs even though they have experience and the required skill sets.
* If we want any worker to carry out for such small works, it is very difficult to get their contact details. Even if we contact them by phone sometimes they may be unreachable or busy with already committed works. In case of workers, finding the work for their needs also very difficult.
* Finding some free workers to do some emergency work also very difficult, even if we ready to pay some extra allowances.
* In order to solve the above problems, to share the worker details to house hold requirements, to share the work details to workers, we are proposing a new approach to design Workers management system which is a mobile and web application to automate the skilled workers requirements in a city such as plumber, carpenter, electrician etc.,
* If anyone has a need of worker they can easily book them via our mobile or web interface if they were busy the application shows an alternative worker to do that work.
* The skilled workers also can register their names and other details through our application in order to get frequent job opportunities and optimal pay depends on their experience and skill set.
* By using this Worker management System, the daily wagers or workers can register their name with their specific working details. For example, an electrician can register himself in application with his details like daily wage, field of work, working timings, experience etc.,
* Similarly people can also login into the application and they can select the worker based on his rating, wage and timings.

**METHODOLOGY**

* Client side user interface will be developed by using ReactJS and ReactNative.
* Server side the requests and responses will be developed using NodeJS.
* For maps, uses Google map APIS.
* Data will be stored in FIREBASE database.
* Authentication is done using FIREBASE authentication services.

**ADVANTAGES**

* This mobile and web application will provide an interface between people and the workers so that people can easily contact with the workers for their need based on their wages and reviews available.
* The system is able to manage the workers in a city who are registered under this application.
* The system will provide the frequent employment for skilled workers.
* This application will also generate reports for the workers such as where they worked, total wages, time spend etc., Based on this information the worker can know how efficient they worked.

**TECHNIQUES USED**

* SERVER : NodeJS, ExpressJs framework
* CLIENT : ReactJS(Web application), React Native(Mobile application)
* DATABASE : Firebase(Firestore, Realtime)
* AUTHENTICATION : Firebase Authentication
* HOSTING : Firebase Server
* MAP APIS : Google Cloud Platform (MAP APIS)
* TESTING : Selenium Framework
* VERSION CONTROL : GIT