**P.E.C**

**Project Patterns**

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**P.U.C.I.T**

**Main Project Idea:**

It is going to be an application that will provide the basic needs of repairing and cleaning to every household. PEC means Plumber electrician and cleaner.

The target audience of PEC are people who are introverts, don’t like to go out and search for workers themselves, or people who don’t have time to do the house chores themselves, or want cost-efficient and trustworthy workers. People who have limited income also come under the target audience of PEC.

P.E.C services will be provided to the users in a single touch. All that is required to be done by the user is just to select the required service, negotiate on the price with the agency manager through call and chat then the manager will dispatch an experienced and well-equipped Team of skilled workers in the required field.

The user will be able to track the team, and will know how long it will take them to arrive. This service will be achieved with the use of embedded maps in the app.

The workers will register themselves through the app and their interviews will be scheduled, the agency will then hire only skilled workers i.e., we will provide our customers with an experienced and well-equipped team of workers.

Features of PEC are that a customer can first sign-up on the application and then can book a worker for their house chores using our application and pay for the work using payment methods of our application.

* Following are the potential design patterns that could be used in our project:

**Creational Pattern:**

* Abstract factory:

To generate specific objects of specific type of service required.

* Prototype:

To show signs of available service providers in area, same object used for same service.

* Object pool:

When client requests for a service and a lot of offers come from different service providers.

**Structural Pattern:**

* Flyweight:

Used to store home location and reuse it when required so that not a new object is created again and again.

* Private class data:

Once a booking is made then it cannot be edited and only be cancelled, for that write access needs to be controlled.

**Behavioral Pattern:**

* Observer:

To provide Clients and service providers with notifications and updates.

* Template:

To provide separate interfaces for requesting a service and for booking a service so that both are maintained separately.

* Command:

When booking is created for a service, a life span would be provided to it so that the user is reminded of the specific date and time of service and different requests could be executed at different times.