DBMS Lab Project

Micro-Jobs(μJ)

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Motivation:

We come across many unemployed talents in our life. Most of them are more suitable for blue collar jobs, which require skilled labour (plumbing, mechanic, electrician). At the same time, many employers are in need of services temporarily but cannot afford to keep a person on retainer. Many Non-Profit Organizations also require skilled labour and blue-collar workers for everything from building houses for the poor to electrical appliance installation. By volunteering, a person can gain practical experience which makes them more hireable. We at **μJ** cater to both of these needs. A good heart with a feasible and economical business model and smart use of database management technology enables us to help the unemployed stay above water and also help those in need.

Innovation :

- It provides temporary jobs for your free time
- Productive way to spend your free time which benefits the society
- Very useful for student community

Business Model:

- Our business is focussed on both profit and non-profit sides.
- We get commision from the jobs which are profitable for the users (i.e. paid jobs)
- Price for a MicroJob is negotiable
- Focussed on large society
- Mainly focussed on blue collar jobs

- Doing volunteering work increases your ratings which in turn increases the chance of hireability in other paid jobs

To avoid Foulplay, we introduce a rating system similar to those introduced by cab services across the world. Once the employer chooses applicants from the list provided by µJobs, and the (refundable) Payment has been made, the contact details are shared between the employer and applicant. If either one of them cancels the job, then the rating of the cancelling party is reduced, hence decreasing their like-ability, and hence the chance of employment or slot filling. This model prevents the users from getting the contact using the µJ service and cancelling the match after they have been connected, thus preventing fraud.
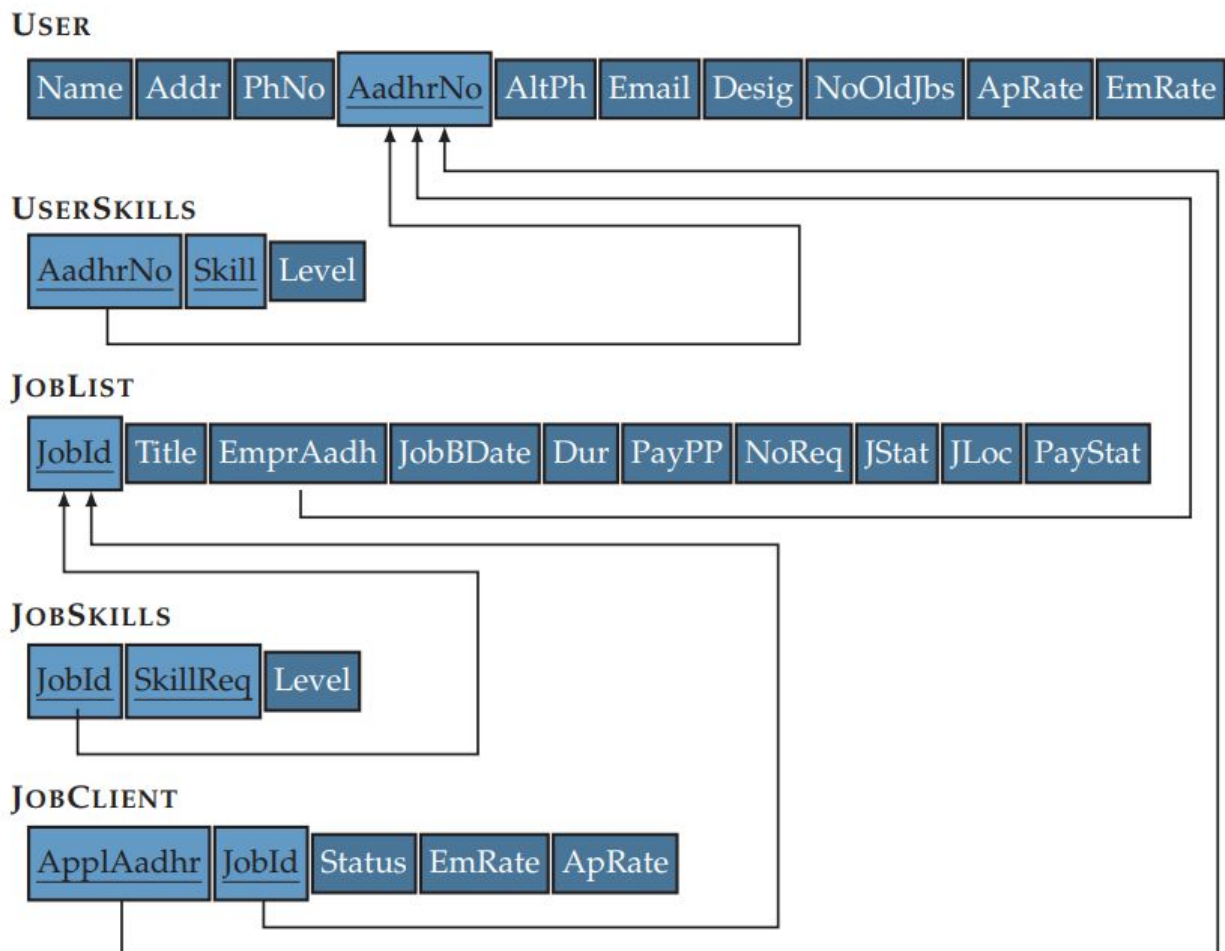
Rating Formula:

$$A_{new} = A_{old} + \frac{E}{5} \times (A_{job} - A_{old}) \qquad (1)$$

$$E_{new} = E_{old} + 0.95 \times (\overline{E_{job}} - E_{old}) \qquad (2)$$

Here A denotes the Applicant and E the employer. The subscript denotes the status: old, job i.e. current job or new. All rating are in a scale of 5.
$\overline{E_{job}}$ denotes the mean rating of employer by all the employees who did the job.

Database Schema:

USER

Name	Addr	PhNo	AadhrNo	AltPh	Email	Desig	NoOldJbs	ApRate	EmRate

USERSKILLS

AadhrNo	Skill	Level

JOBLIST

JobId	Title	EmprAadh	JobBDate	Dur	PayPP	NoReq	JStat	JLoc	PayStat

JOBSKILLS

JobId	SkillReq	Level

JOBCLIENT

ApplAadhr	JobId	Status	EmRate	ApRate

Applications for large society:

- Community Outreach
- Experience and opportunities for you youths.
- Ease of service finding
- Earn money through your hobbies(the best part)
- Helps those women and students who are looking small credit amounts to support their daily chores and also their children in case of women

Workflow:

1) Any user can post a opening for a job which requires a set of skills with the specified level of expertise along with the details of the job. The posted job can either be paid or non-paid (Volunteer).
2) Whenever a new job is posted the users matching the required skill set receive a notification regarding the same.
3) Interested candidates can apply for open jobs which matches their skill set.
4) The employer selects the appropriate applicants for that job.
5) The selected applicants enter into the negotiation phase where they agree on the terms and conditions for that particular job.Then starts the job phase, where the work begins.
6) At the end of the job phase, ratings are given for the employer and the applicant based on the rating formula and the process the completed.
7) If at the negotiation phase, either the employer or the applicant refuses, their rating will be reduced by significant amount. This ensures that there is no fraudulent behaviour, as the reduction in rating will make a negative impact for the future jobs.

Queries:

- List all Jobs Completed by a person [inc. of details like duration, rating ,etc]
- List available jobs for a given user (based on available skill and skill in demand)
- Display the public profile of all applied candidates
- Applying for an available job.
- Post a new job.
- Rate the performance of applicants
- Rate the performance of Employer
- Renew a job and notify the previous employee about the same [Very useful for non-profit organizations.]
- Average Rating for a particular person
- All Jobs posted by a person

Functionalities: Confirm and Connect the Person who posted the job and the person who applied for it. (if GUI is implemented)