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Department of Information Technology

Community Engagement Project : Review 0 (AY 2025-26)

“SkillBridge – Connecting Local Talent to Local Needs”

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Name of Sponsor: (If applicable)

Date: 12/08/2025

CEP Project Title

Title 1

Context of the Project

- Solves job access issues for local skilled workers.
- Helps customers quickly find verified professionals.
- Uses a location-based web platform for fast and reliable connections.

Area/Community of Focus

- Urban and semi-urban communities.
- Skilled workers: plumbers, electricians, carpenters, painters.
- Households and small businesses needing repair or maintenance services.

Introduction

SkillBridge is a web-based platform designed to connect local skilled workers such as plumbers, electricians, carpenters, and painters with customers in need of their services.

The platform enables customers to post job requests with details like service type, location, and budget.

Verified workers receive real-time job alerts via WhatsApp/email and can accept them instantly.

Using location-based matching, SkillBridge ensures fast, reliable, and safe service delivery.

Problem Identification

Problem Statement: Local skilled workers (plumbers, electricians, carpenters, painters) lack consistent job opportunities, while customers struggle to find reliable, verified professionals nearby.

Why is this problem important? It affects workers' income stability and customers' ability to get timely, quality services, creating inefficiency in the local service market.

Impact on the local community: Improves livelihood for workers, provides customers with trusted service providers, and strengthens the local economy by boosting small-scale skilled trades.

Proposed Objective

What the team aims to achieve:

Develop a web-based platform that efficiently connects verified local skilled workers with customers through location-based matching, ensuring quick service, improved job opportunities, and enhanced trust within the community.

Literature Review

Sr. No	Paper Title	Publication Details (Journal name & Year)	Merits	Demerits	Gap/ Findings
1.	Improving Trust in Gig Economy Platforms through Worker Verification	IEEE Access, 2020	Proposes ID verification to increase trust	Lacks location-based search feature	Needs integration of verification with location-based matching
2.	Skill-based Task Recommendation in Crowdsourcing using Machine Learning	ACM Transactions on Intelligent Systems, 2019	Uses machine learning to recommend tasks based on user skills	No real-time learning or location relevance	Lacks location-awareness and real-time adaptability

Planned Field Visit / Stakeholder Interaction

- Places to visit:-

Information Technology (IT) & Digital Services

The IT sector remains the **largest employer in Pune**, especially around Hinjewadi's Rajiv Gandhi Infotech Park, which houses over 800 IT companies and employs hundreds of thousands (over 300,000 as of 2017).

Manufacturing & Automotive

- Pune—often dubbed the “**Detroit of India**”—has a long-standing automotive manufacturing presence in regions like Chakan, Talegaon, Ranjangaon, and Mundhwa. Major OEMs include Volkswagen, Mercedes-Benz, Bajaj Auto, Tata Motors, Force Motors, JCB, and more.

- What data will be collected:-

- Worker Demographics
- Skills & Work Experience
- Employment Preferences
- Industry Needs (Employer-Side Data)
- Gaps & Challenges
- Location-Based Data

Expected Outcomes

For Workers

- Increased visibility of skills to a larger employer base.
- Faster and easier access to job opportunities in their locality or remote.
- Higher chances of employment due to AI-driven skill matching.
- Opportunities for skill enhancement via integrated training modules.

For Employers

- Access to a verified pool of candidates with relevant skills.
- Reduced hiring time through automated recommendations.
- Better quality hires through ratings and past performance reviews

For the Community

- Reduced unemployment rates in target areas.
- Empowerment of low-income workers through direct access to opportunities.
- Encouragement for skill development and vocational training.
- Enhanced transparency and trust in job hiring processes.

For the Platform (Skill Bridge)

- Growing user base leading to higher engagement and sustainability.
- Potential revenue streams through premium job postings, ads, or subscription models.
- Reputation as a trusted bridge between skills and opportunities.

Methodology

Hardware:

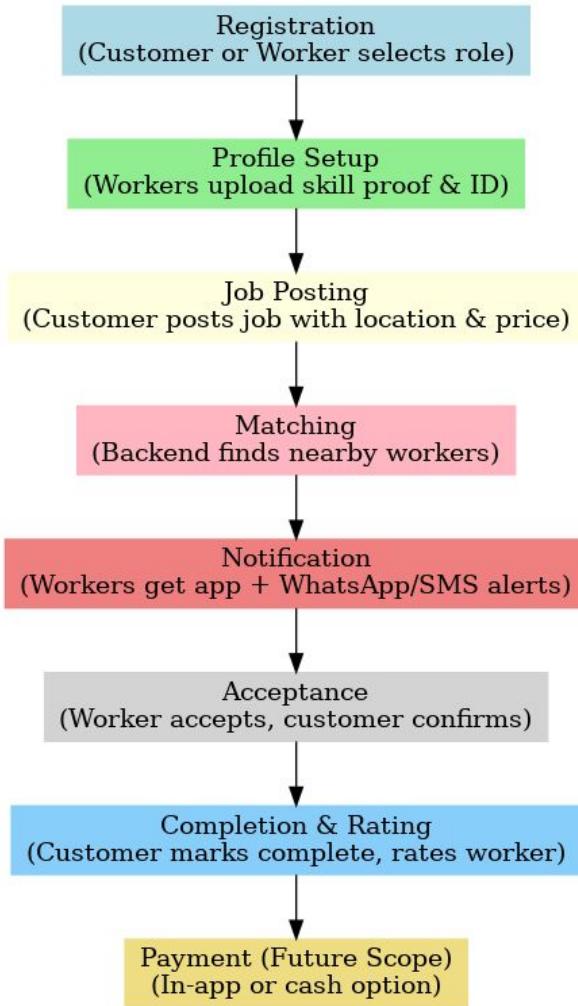
- Computer/Laptop with internet
- Cloud hosting server

Software:

- Frontend: HTML, Tailwind CSS, React
- Backend: Node.js
- Database: MongoDB/MySQL
- APIs: Google Maps, WhatsApp

Platform:

- Web-based, accessible through any browser
- Hosted on cloud server



Thank You!!