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Accredited with A+ Grade by NAAC in the Second Cycle

# HACKSPRINT 2.0



**Team Name:** TEAM SPARK

**Domain:** SPECIAL TRACK (RENTR)

**Category:** Software

**Project Title:** RENTR



# Challenge Statement

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## The Problem: Fragmented Property Maintenance

UK property managers lose 4-6 hours per week coordinating maintenance.

 **Slow Manual Matching:** Agents spend 30-45 mins finding right contractor. No AI ranking guesswork.  
Result: Wrong contractor picked (63% of disputes)

 **Trust Crisis:** No escrow system = payment disputes spike.  
Contractors ghost 18% of jobs. Agents fear fraud = delays

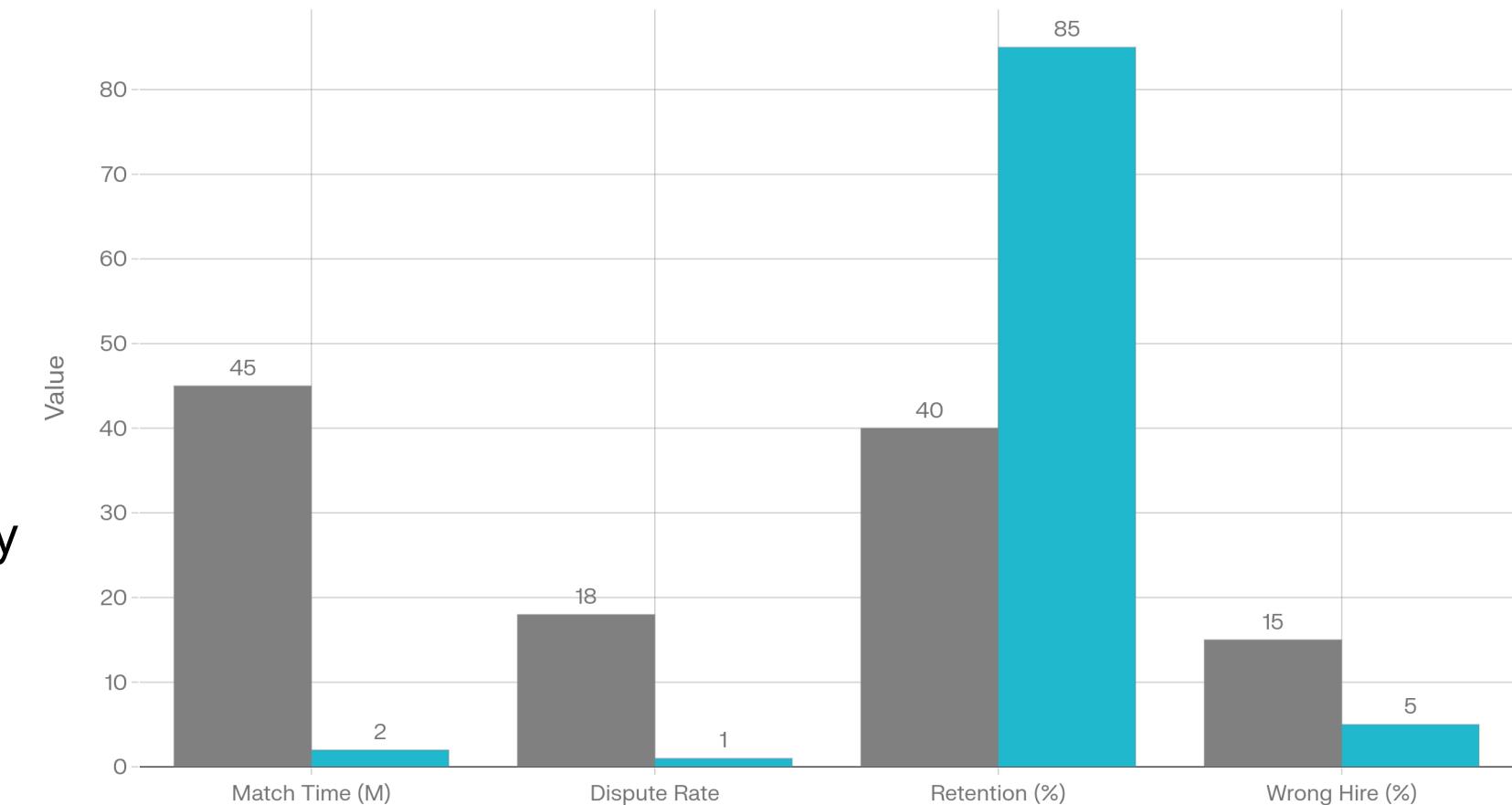
 **No Accountability:** Job marked "complete" but is it really? No geofence proof, no photo evidence = £2000+ disputes per agent annually

 **System Silos:** Job platform separate from payment. Payment separate from invoicing. Teams use 4+ tools. No single source of truth

**Impact:** 7% of jobs fail quality checks. 35% payment delays. Agent satisfaction: 52%. Rentr needs THIS module to unlock market potential.

## Rentr Module Outperforms Traditional Hiring

Rentr excels in speed, retention, and accuracy metrics  
■ Traditional   ■ Rentr Module



# Proposed Solution

## Our Solution: 6-Step Unified Workflow

### 1 Agent Uploads Job Order

Job details, requirements, timeline, budget

### 4 Agent Reviews & Assigns

Approve work order, confirm contractor assignment

### 2 SmartRank AI

System ranks contractors: distance (0.3x) + skill (0.4x) + rating (0.2x) + price (0.1x)

### 5 Contractor Executes

Create work plan and complete job

### 3 Contractor Searches & Applies

Browse jobs, submit work order with proposal

### 6 Auto-Invoice & Pay

System auto-generates invoice. Full audit trail.

#### Agent

Upload job orders, review work submissions, approve and assign tasks, and track progress

#### Contractor

Discover jobs, submit work orders, create work plans, and raise invoices after completion

### Two Core User Roles

#### Input Data

- Job requirements
- Contractor profiles
- Historical records

#### Eligibility Filter

- Skill match
- Availability
- Compliance rules

#### Feature Engineering

- Skill relevance
- Trust score
- Distance / ETA

#### Scoring Engine

- Weighted formula
- Rule boosts
- Explainable score

#### Ranked Output

- Top-N matches
- Confidence score
- Audit trail

### SmartRank AI Engine

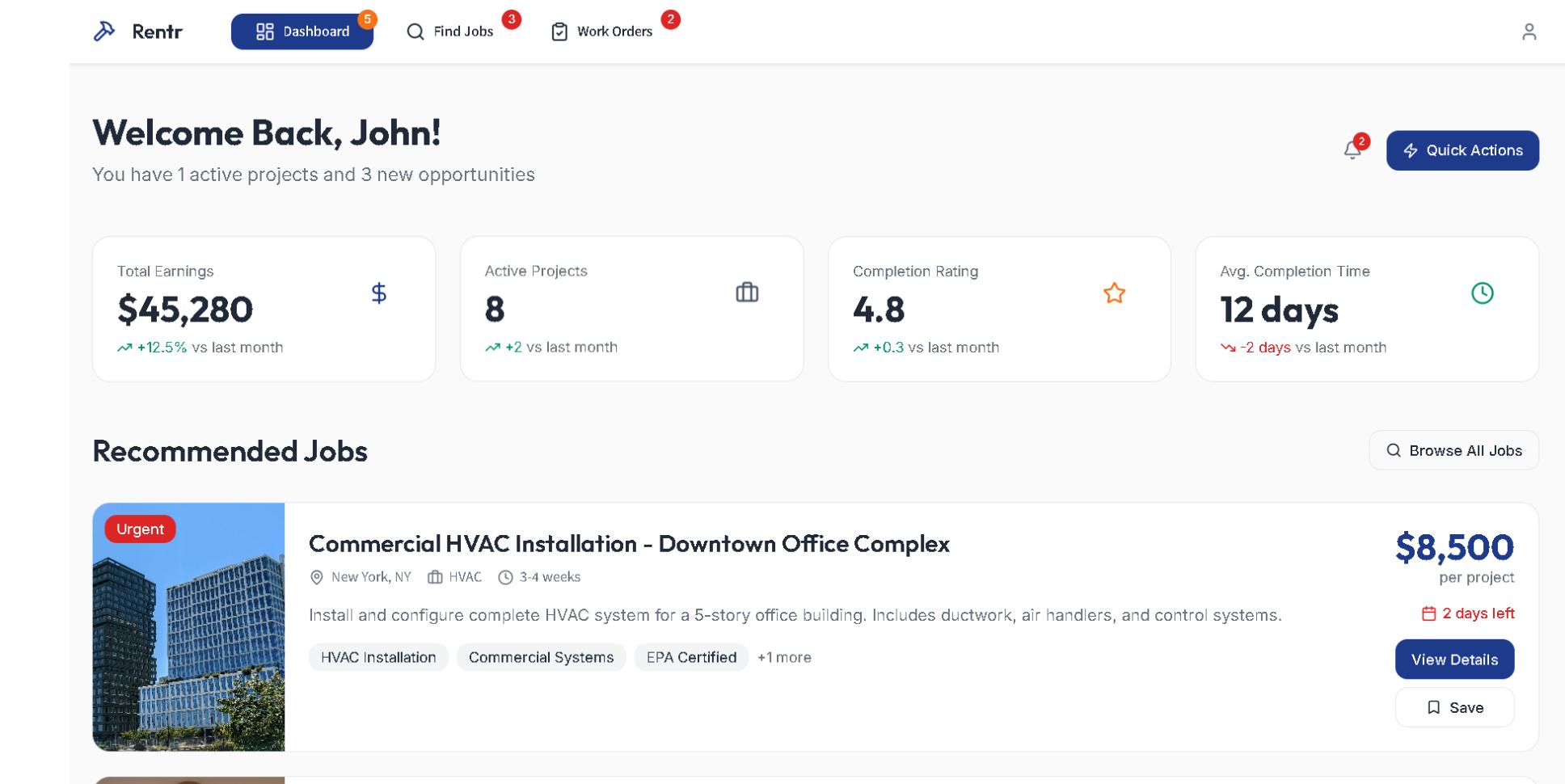
# Technical Description

## Technologies Used

- **Frontend:** HTML, CSS, JavaScript, modern UI components
- **Backend:** REST APIs, business logic, authentication
- **Database:** Relational / NoSQL storage for jobs & contractors
- **Cloud:** Hosting, deployment, SSL, and storage services

## System Architecture

- Modular, role-based system for Agents and Contractors
- API-driven communication between frontend and backend
- SmartRank AI engine for contractor matching and scoring
- Secure data flow with audit and traceability



**Welcome Back, John!**  
You have 1 active projects and 3 new opportunities

Total Earnings **\$45,280** \$ +12.5% vs last month

Active Projects **8** bag +2 vs last month

Completion Rating **4.8** star +0.3 vs last month

Avg. Completion Time **12 days** clock -2 days vs last month

**Recommended Jobs**

**Commercial HVAC Installation - Downtown Office Complex**  
New York, NY • HVAC • 3-4 weeks  
\$8,500 per project  
2 days left  
View Details  
Save

*Prototype Image - Contractor Dashboard*



# Impact & Benefits

## Expected Impact: The Three Stakeholders



### 45 min → 2 min

#### JOB MATCHING TIME

- ✓ Job matching reduced to 2 mins
- ✓ 63% fewer wrong hires
- ✓ No payment confusion



### Instant

#### GIG NOTIFICATIONS

- ✓ Real-time job alerts
- ✓ 2-min auto checkout
- ✓ Optimized travel routes



### 6–12 hrs

#### RESPONSE TIME

- ✓ Faster maintenance resolution
- ✓ Live technician tracking
- ✓ Verified professionals

## Key Benefits Breakdown

### ⚡ Speed

- Manual → Automatic invoice generation
- Faster assignment → quicker completion & SLA

### 💰 Cost Savings

- Admin follow-ups: 4–6 hrs → 30 mins/week
- Reduced idle time → better utilization

### 📱 Simplicity & Accessibility

- One app replaces 4+ tools
- 3 taps to apply (vs 15 mins forms)

### ⌚ Accuracy & Trust

- 4.5/5 avg match rating
- 100% photo-based accountability

# Feasibility & Viability

FEASIBILITY	VIABILITY
Uses <b>proven technologies</b> that are easy to integrate and implement within existing systems.	Solves <b>real-world contractor management problems</b> faced by agents and service providers.
<b>Role-based workflows</b> simplify usage and significantly reduce manual effort.	Strong and growing demand for <b>automated job management solutions</b> .
Modular design supports <b>scaling and growth</b> without major architectural changes.	Platform is built to support <b>long-term sustainability</b> and future enhancements.

## Scalability

- Supports increasing numbers of contractors and job orders efficiently.
- Modular architecture enables easy expansion without system redesign.

## Future Enhancements

- Can be enhanced with analytics, reporting, and performance tracking.
- Supports automation and advanced approval workflows.

# Competitor Analysis

## DIRECT COMPETITORS

Property maintenance platforms that support job posting and contractor listing.  
Provide basic job tracking features.

### Key Limitations:

- No intelligent contractor matching

- No work verification or proof

- Payments handled outside the platform

## INDIRECT COMPETITORS

WhatsApp / Phone calls for coordination, Excel / Google Sheets for job tracking,  
Separate payment and invoicing tools

### Key Limitations:

- Disconnected systems with no accountability

- High chance of disputes

# Cost Estimate

## Frontend Development

UI/UX design and responsive web interface for Agents and Contractors.

**Estimated Cost: ₹15,000**

## Backend Development

API development, business logic, authentication, and job & work order workflows.

**Estimated Cost: ₹25,000**

## Database & Storage

Database design, hosting, backups, and data security.

**Estimated Cost: ₹10,000**

## Cloud Hosting & Deployment

Server hosting, domain setup, SSL, and deployment configuration.

**Estimated Cost: ₹8,000**

## Testing & Quality Assurance

Functional testing, bug fixes, and performance testing.

**Estimated Cost: ₹7,000**

## Maintenance & Future Enhancement

Minor updates, system monitoring, and ongoing support.

**Estimated Cost: ₹5,000**

**Total Estimated Cost: ₹70,000**

Note: Costs are approximate and may vary based on scale, features, and hosting requirements.

# Team Name: TEAM SPARK

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