

## Senior Capstone Project Proposal

**Project Team ID:** 2

**Project Title:** Web Application Demo for Restaurant Roll Call Staff Management

### Team Members

Member	Name	Email
Team leader	Brendan Maska	maskbj01@pfw.edu
Member 1	Adarsh Bains	bainab01@pfw.edu
Member 2	Carmen Cruz	cruzcg03@pfw.edu
Member 3	Shine Zaw	zaws01@pfw.edu
Member 4	Quincy Adamski	adamql01@pfw.edu

### Faculty Advisor

Name / Title	Dr. Zesheng Chen
Office	ET 125E
Phone	260-481-6187
Email	<a href="mailto:chen439@pfw.edu">chen439@pfw.edu</a>

### Project Sponsor (Optional)

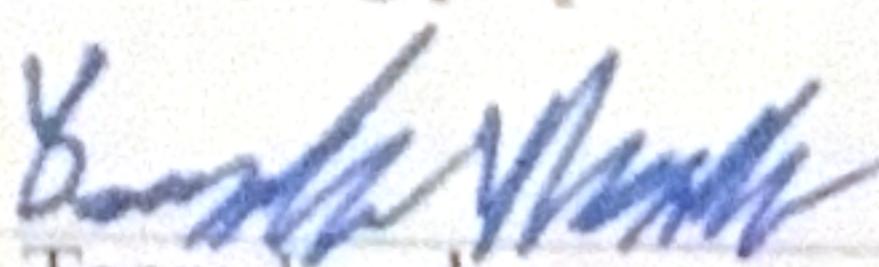
Contact person	Tricia Jakacky
Contact info	<a href="mailto:tricia.jakacky@shiftsolutionscorp.onmicrosoft.com">tricia.jakacky@shiftsolutionscorp.onmicrosoft.com</a>
Company name	Shift Solutions Inc.
Address	

### Project Description

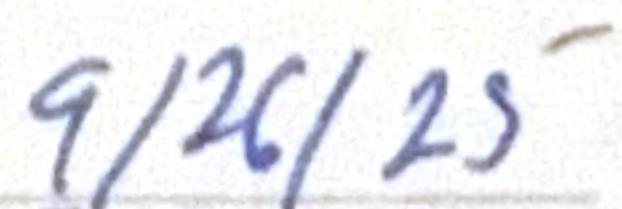
Type	Application development	Research-focused	Information systems
<b>Abstract</b>	<p>The restaurant industry frequently faces staffing shortages, leaving managers scrambling to fill shifts at the last minute. Traditional hiring and scheduling methods are slow and inefficient, often leading to reduced service quality or section closures.</p> <p>This goal of this project is to develop a proof-of-concept web application demo for the <b>Restaurant Roll Call</b> platform by Shift Solutions, establishing an open marketplace where restaurants nationwide can connect with fully vetted staff to fill vacant shifts efficiently.</p>		

<b>Requirements</b>	<p>The demo will feature two distinct points of entry:</p> <ol style="list-style-type: none"><li>1. A restaurant/client portal prototype where managers can select a client type (e.g., Restaurant), create a profile, select a subscription plan, upload a restaurant layout and training video, and post vacant shifts.</li><li>2. A server/staff portal prototype where individuals can onboard, upload required documents (e.g., photo ID, liquor license), complete interactive training, and apply for open shifts.</li></ol> <p>The design will include a basic framework for future API integrations (e.g., background checks, payment processing) to support scalability. The demo will simulate key workflows, including client setup, staff onboarding, and admin operations (e.g., profile validation, tablet setup), prioritizing an intuitive user interface with UI/UX collaboration. The scope is limited to a functional demo to showcase the marketplace concept. This aligns with Shift Solutions' goal of transforming staff scheduling through an innovative, cost-effective platform, while preparing for full development in subsequent phases.</p>
<b>Optional features</b>	
<b>Required resources (HW/SW)</b>	<ul style="list-style-type: none"><li>• Front-end: React (TypeScript + Tailwind)</li><li>• Back-end: FastAPI (Python)</li><li>• Database: PostgreSQL</li></ul>
<b>Technology disclosed? If so, what?</b>	Yes - The project will disclose business logic and proprietary workflows used by Shift Solutions to manage client onboarding, tiered credentialing, staff training, and marketplace interaction. No proprietary source code will be provided; students will develop all technical components independently using open-source tools.
<b>NDA or IP assignment agreement requested?</b>	NDA is requested
<b>Other notes</b>	

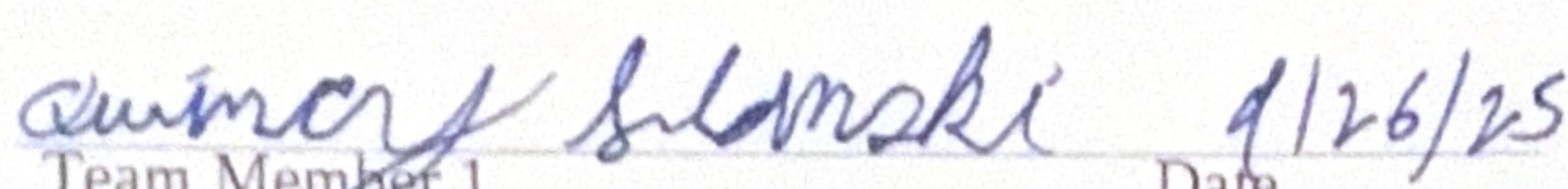
As a member of Project Team, I agree to attend project meetings regularly, participate in developing project actively, and make a full effort to complete this project as proposed.



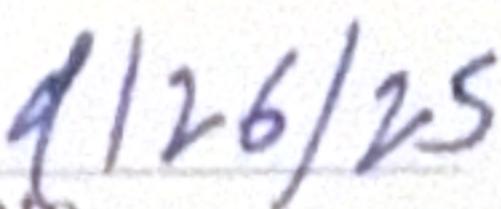
Team Leader



Date



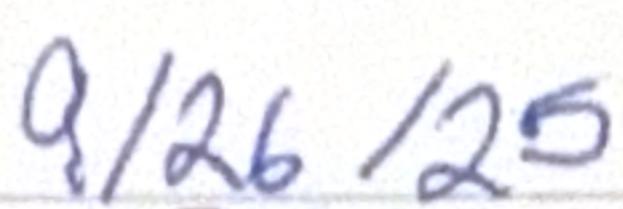
Team Member 1



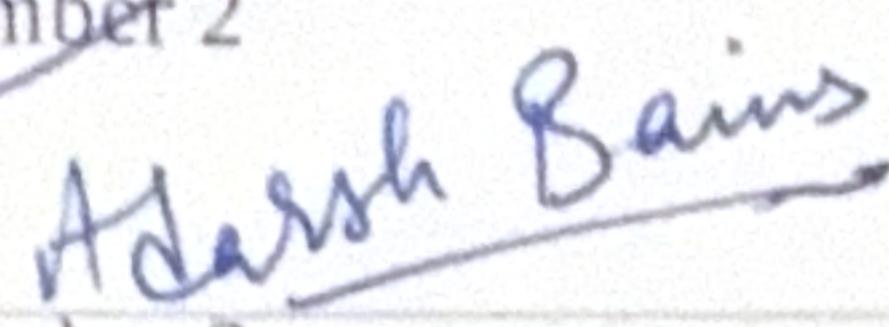
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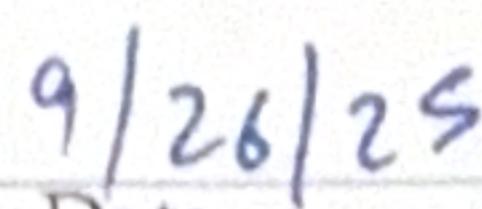
Team Member 2



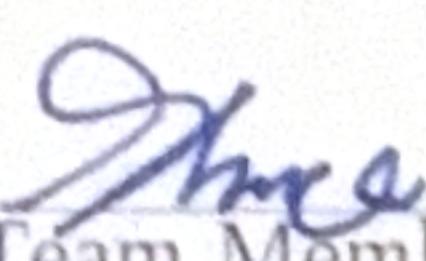
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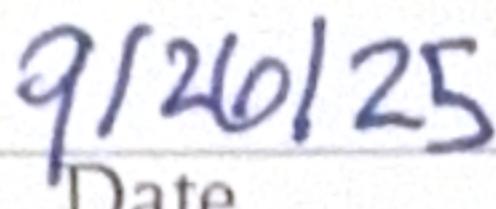
Team Member 3



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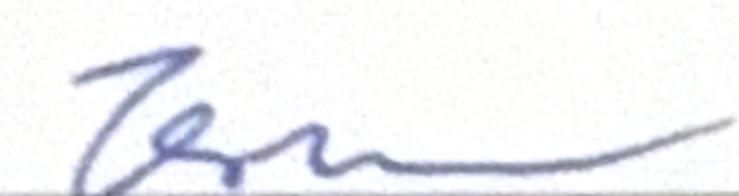


Team Member 4

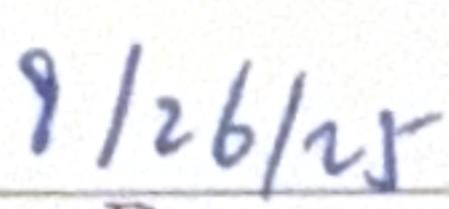


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As the Faculty Advisor, I agree to meet regularly with the student project team, manage their activities, and participate in the evaluation of project deliverables.

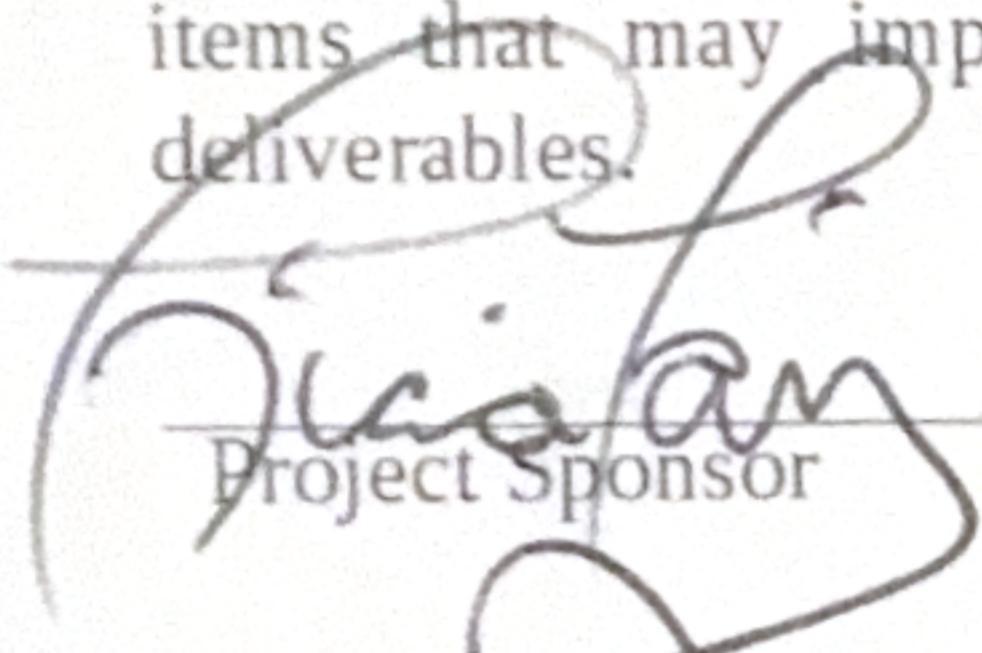


Faculty Advisor

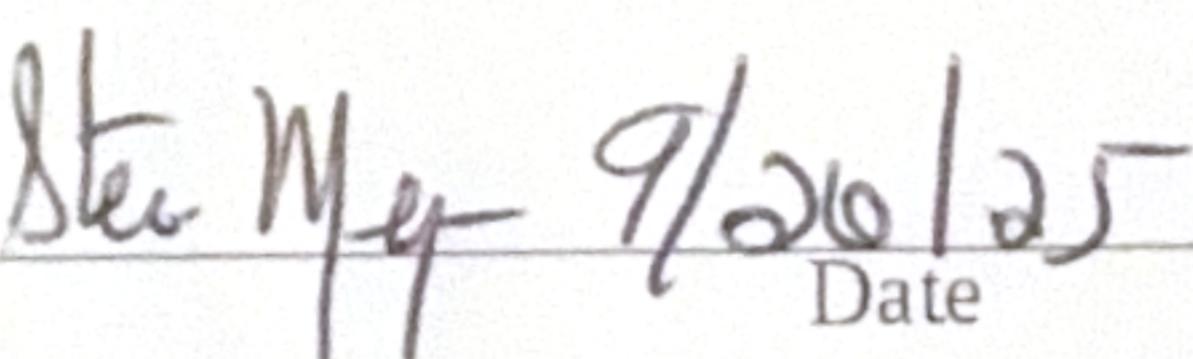


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As the Project Sponsor, I agree to communicate with the student project team as needed to provide information related to project scope, requirements, assumptions, constraints or other items that may impact project success, and to participate in the evaluation of project deliverables.



Project Sponsor



Date

**Technology and ECCN:**

"If your project involves 'technology' that is either (a) not publicly available or (b) includes proprietary source code (not executable files), then it requires an ECCN." 'Technology,' for this purpose, is defined as "information necessary for the development, production, use, operation, installation, maintenance, repair, overhaul or refurbishing of an item. Technology may be in any tangible form, such as written or oral communications, blueprints, drawings, photographs, plans, diagrams, models, formulae, tables, engineering designs and specifications, computer-aided design files, manuals or documentation, electronic media or information revealed through visual inspection."

**Interactive tool to determine ECCN:**

<https://www.bis.doc.gov/index.php/export-control-classification-interactive-tool>

**NDAs and IP Assignments:**

The sponsoring company typically has NDAs and IP assignment forms that it wishes to use. Neither the NDA nor the IP assignment is an agreement with Purdue directly; these agreements are between the students and the sponsoring company. Of course, our office can review the company-provided documents to be certain it aligns with Purdue's standards. Alternatively, our office has draft agreements which we could provide for the sponsor's use. Again, as NDAs are between the student and the sponsor, Purdue cannot be a party to or advise the sponsor or the student on the NDAs, other than to outline some basic expectations as to fairness and suitability of the NDA to a student project.