

Formal Meeting 1

Meeting Date: @October 17, 2024 4:00 PM

1. Project Overview

Objective: Develop a staff scheduling tool for efficient restaurant management, enabling dynamic planning based on real-time data.

1.1 Key Requirements

- Facilitate efficient management by human planners
- Enable dynamic scheduling responses to latest data
- Planning horizon: 1 week to 1 month
- Accommodate shift durations: 2 to 12 hours

1.2 Core Features

1. Excel-compatible data import/export
2. Comprehensive summary statistics
3. Real-time schedule updates
4. Simulation of unexpected events (e.g., demand surges, employee tardiness)
5. User-friendly interface for restaurant managers

2. Scheduling Process

▼ Stage 1: Demand Modeling

Determine worker requirements (number of workers) across different time slots within the planning horizon.

▼ Stage 2: Shift Designing

Create shift sets and calculate required workers to meet modeled demand.

▼ Stage 3: Shift Assignment

Allocate workers to individual shifts while satisfying demand and constraints.

3. Project Timeline (PROVISIONAL)

| Phase | Duration | Key Activities |
|--------------------------|-----------------------------|--|
| Planning & Analysis | Oct 13 - Nov 9, 2024 | Scope definition, requirement gathering |
| Design | Nov 10 - Nov 30, 2024 | System architecture, UI design, technology selection |
| Initial Implementation | Dec 1 - Dec 21, 2024 | Core functionality development |
| Continued Implementation | Dec 22, 2024 - Jan 11, 2025 | Feature development, code reviews |
| Testing | Jan 12 - Feb 1, 2025 | Comprehensive testing phase |
| Refinement | Feb 2 - Feb 22, 2025 | Issue resolution, performance optimization |
| Final Implementation | Feb 23 - Mar 15, 2025 | Final changes, deployment preparation |
| Deployment Preparation | Mar 16 - Mar 29, 2025 | Final testing, environment setup |
| Deployment & Submission | Mar 30 - Apr 12, 2025 | Software deployment, final reports |
| Project Showcase | Apr 13 - Apr 19, 2025 | Open Day, presentations |

4. Key Deliverables

- Equipment requests (from Oct 16, 2024)
- Completed Ethics forms (Oct 21, 2024)
- Group project site (Oct 31, 2024)
- Interim reports (Dec 5, 2024, TBC)
- Team final reports and software (Apr 2, 2025, TBC)
- Software Demonstration recording (Apr 9, 2025, TBC)
- Team Presentation recording (Apr 9, 2025, TBC)
- Team promotional digital artifact (Apr 9, 2025, TBC)

- Open Day participation (Apr 16, 2025, TBC)
- Individual final reports (Apr 22, 2025)

Note: This project plan is subject to adjustments based which methodology we want to follow and potential changes to key dates.

5. Ethics Form

Please refer to the attached ethics form for detailed information:






6. Work 😊

6.1 (ALL) Understanding The Team (Around 30 minutes)

Complete this:

<http://www.humanmetrics.com/cgi-win/jtypes2.asp>

Using the graph below as reference, choose one team role that aligns with you the most.

| Team Role | | Contribution | Allowable Weaknesses |
|-----------------------|---|--|---|
| Plant |  | Creative, imaginative, free-thinking. Generates ideas and solves difficult problems. | Ignores incidentals. Too preoccupied to communicate effectively. |
| Resource Investigator |  | Outgoing, enthusiastic, communicative. Explores opportunities and develops contacts. | Over-optimistic. Loses interest once initial enthusiasm has passed. |
| Co-ordinator |  | Mature, confident, identifies talent. Clarifies goals. Delegates effectively. | Can be seen as manipulative. Offloads own share of the work. |
| Shaper |  | Challenging, dynamic, thrives on pressure. Has the drive and courage to overcome obstacles. | Prone to provocation. Offends peoples feelings. |
| Monitor Evaluator |  | Sober, strategic and discerning. Sees all options and judges accurately. | Lacks drive and ability to inspire others. Can be overly critical. |
| Teamworker |  | Co-operative, perceptive and diplomatic. Listens and averts friction. | Indecisive in crunch situations. Avoids confrontation. |
| Implementer |  | Practical, reliable, efficient. Turns ideas into actions and organises work that needs to be done. | Somewhat inflexible. Slow to respond to new possibilities. |
| Completer Finisher |  | Painstaking, conscientious, anxious. Searches out errors. Polishes and perfects. | Inclined to worry unduly. Reluctant to delegate. |
| Specialist |  | Single-minded, self-starting, dedicated. Provides knowledge and skills in rare supply. | Contributes only on a narrow front. Dwells on technicalities. |



Due: 19th October 2024

Assignment of roles will be in our next informal meeting, 21st October. The guide given from lecture will be used as reference for assigning roles. These roles aren't finalized.

6.2 (ALL) Methodologies (2-3 days)

- Kanban - Minghe XU & Aijia YU
- Scrum - Jey Vi TAN & Lik Wei CHAN
- Waterfall - Ziyu JIA & Peifeng LIU

Each group research that methodology and their suitability for our project. Produce a brief overview of the methodology and highlight the pros and cons for our specific project.



Due: **21st October 2024**

During our informal meeting on 21st October we will have a group discussion. We will then make a collective decision on the methodology to adopt.