DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

DESIGN THINKING LAB - AI237DL

DOMAIN : DIGITAL HUMANITIES

ADITYA RANJAN | GARV AGARWALLA | AHIBHRUTH A | DIPTANSHU KUMAR
1RV23AI008 | 1RV23AI034 | 1RV23AI011 | 1RV23AI033

Mentor-Dr .Vijayalakshmi M.N

Go. change the world®

Thinks
- **Typical Thoughts**: Users worry, "Will I have enough time for lunch today?"
- **Impact**: This reveals concerns about time constraints, pointing to the need for a solution that ensures timely service, such as a pre-booking system.

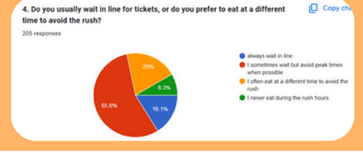
Feels
- **Emotional Responses**: Users feel frustrated by long waits and worried about missing other commitments.
- **Impact**: Understanding these emotions highlighted the importance of predictability and efficiency in the dining experience, supporting the need for a solution like a pre-booking system.

Says
- **Common Comments**: Users frequently mention, "The lines are too long" and "It's hard to find a seat."
- **Impact**: These direct statements highlight a need for faster service and improved seating options, showing users' desire for a more efficient dining experience

Does
- **Observed Behaviors**: Students and faculty often arrive early or skip lunch to avoid crowds.
- **Impact**: These adjustments indicate that users would value a system to reduce wait times, helping them maintain their schedules without altering routines.

- Long Wait Times
- Overcrowding
- Missed Meals

- Inefficient Queue Management
- Staff Workload Pressure
- Need for a Streamlined Solution



STP ANALYSIS

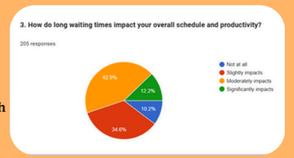
S — Segmentation
- Students who wait during lunch break
- Faculty members find time to eat during between classes

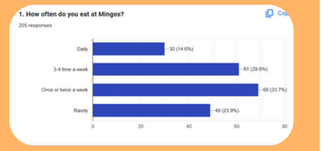
T — Targeting
- Primary targets-Students
- Secondary targets-Faculty members

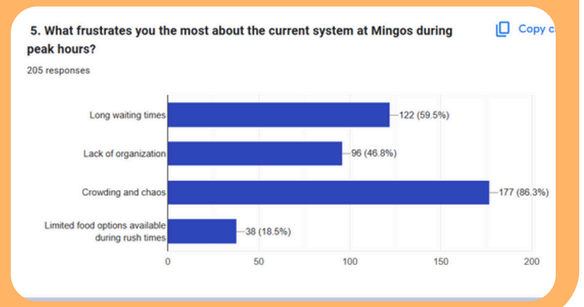
P — Positioning

Positioning the advanced booking as a quick,reliable to streamline the dining experience and to provide hassle free lunch hour

EMPATHY PHASE







Mingos, the college dining facility, faces challenges during peak lunch hours with long wait times, overcrowding, and inefficient service. These issues lead to dissatisfaction among students and faculty, impacting schedules and reducing meal accessibility. .

DEFINE PHASE

SWOT ANALYSIS

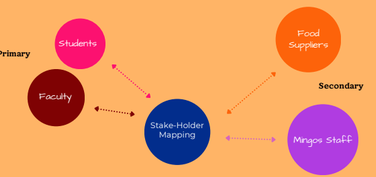
S — STRENGTHS
A pre-booking system can reduce wait times and improve service flow.

W — WEAKNESSES
Implementing the system may require upfront investment and training.

O — OPPORTUNITIES
Enhances student and faculty satisfaction, potentially increasing facility usage.

T — THREATS
Risks include potential technical issues and reliance on user adoption.

How Might We ?
- How might we ensure that students and staff can easily find available food options in real time?
- How might we design a system that notifies customers if their chosen food item becomes unavailable after pre-payment?
- How might we manage and reduce crowding by implementing better queue management and pre-booked time slots?
- How might we make the pre-booking process simple and accessible for students during classes or limited breaks?
- How might we improve the experience of collecting food to avoid confusion and long wait times?



Madlib

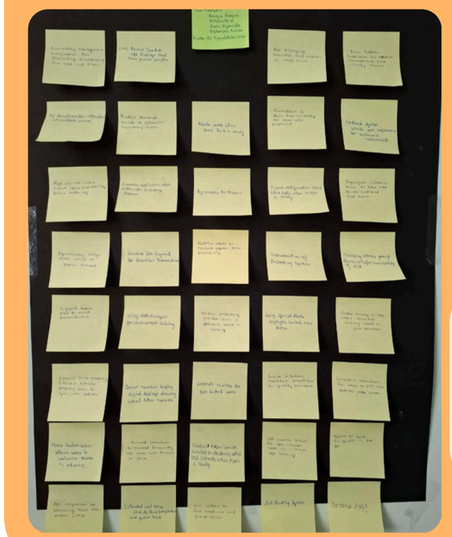
User ___ needs to ___ user's needs ___ because ___ insight ___ .

Our users are Students who need a way to reduce wait times and improve the dining experience during peak hours because of limited time and overcrowding.

Final PoV

Students want a queue-management and real-time update system at Mingos to reduce wait times, streamline pick-up, and improve their overall dining experience, making lunch hours more efficient and satisfying.

IDEATE PHASE



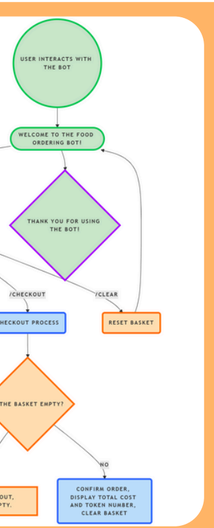
FEASIBILITY ANALYSIS

IDEA	TECHNICAL FEASIBILITY	FINANCIAL FEASIBILITY	OPERATIONAL FEASIBILITY	TIME FEASIBILITY
SLOT BOOKING SYSTEM	HIGH	HIGH	HIGH	HIGH
TIME-BASED SLOTS	HIGH	HIGH	HIGH	MEDIUM
MENU CUSTOMIZATION	HIGH	MEDIUM	MEDIUM	MEDIUM
ESTIMATED WAIT TIME	MEDIUM	MEDIUM	LOW	LOW
MULTI-ORDER MANAGEMENT	MEDIUM	MEDIUM	MEDIUM	MEDIUM
TOKEN-BASED ENTRY	MEDIUM	MEDIUM	LOW	LOW
DYNAMIC QUEUE ASSIGNMENT	LOW	MEDIUM	LOW	LOW
USER TRENDS ANALYSIS	LOW	LOW	LOW	LOW
PRIORITY SERVICE LINE	LOW	LOW	LOW	LOW
STAFF ALLOCATION	LOW	LOW	LOW	LOW
INVENTORY MANAGEMENT	LOW	LOW	LOW	LOW
SELF-SERVICE KIOSKS	LOW	LOW	LOW	LOW

Impact vs Effort Analysis

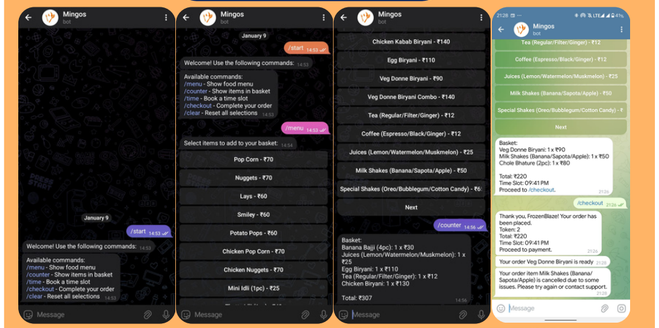
MoSCoW Prioritization
- Must-Have
  1. Slot Booking System
  2. Time-Based Slots
- Should-Have
  3. Menu Customization
  4. Estimated Wait Time
- Could-Have
  5. Multi-Order Management
  6. Token-Based Entry
- Won't-Have
  7. Dynamic Queue Assignment
  8. User Trends Analysis
  9. Priority Service Line
  10. Staff Allocation
  11. Inventory Management
  12. Self-Service Kiosks

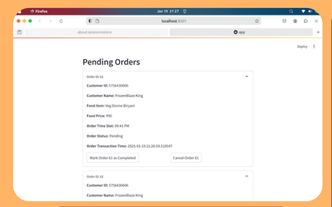
Workflow Flowchart

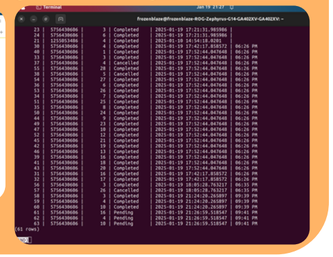


1. **Web App/Cloud-Based Service**
   - The bot operates over the internet and is accessible to users through the Telegram platform.
   - It doesn't require installation as it leverages Telegram's existing infrastructure.
2. **Cross-Platform Application**
   - Since the bot operates within Telegram, it is inherently cross-platform, working seamlessly on iOS, Android, desktop, and web versions of Telegram.
3. **Automation Tool**
   - Automates tasks such as order tracking, time-slot scheduling, and checkout management, improving user efficiency and convenience.

PROTOTYPE PHASE







Click-Through Prototype

TESTING PHASE

USER FEEDBACK AND SUGGESTIONS :

1.Integration of UPI for digital payments
2.Menu customization
3.Multi language support
4.Display History

Positive feedback from users:
1.Faster ordering
2.Better Experience

Key Considerations:

Operational Challenges : Handling both app-based and walk-in orders can lead to confusion or delays if not managed properly.

User Reviews :

"Rough waiting timing can be showed on each time slot so that we can decide an optimised time slot based on our convenience"

"A notification could be provided when the order is ready"