Queue-Free: The Future of Fast Concession Stands

This project plan outlines the transformation of concession stand operations at SDSU’s Viejas Arena through modern digital technologies. The initiative addresses long lines, slow service, and inventory inefficiencies by introducing mobile ordering, RFID inventory management, and upgraded POS terminals. Scheduled for launch in August 2025, Queue-Free aims to enhance speed, transparency, and user experience, serving as a model for university-wide digital transformation.

M **by Manaswini**

Project Context and Business Drivers

Challenges

Long queues, inventory mismanagement, and minimal data tracking reduce customer satisfaction and sales potential.

Business Drivers

- Reduce wait times by 50% to under 5 minutes
- Increase sales per event by 25–30%
- Improve inventory control by 15%
- Achieve app satisfaction rating above 4.5/5

Strategic Alignment

Supports SDSU’s goals for digital transformation, operational sustainability, and enhanced engagement.

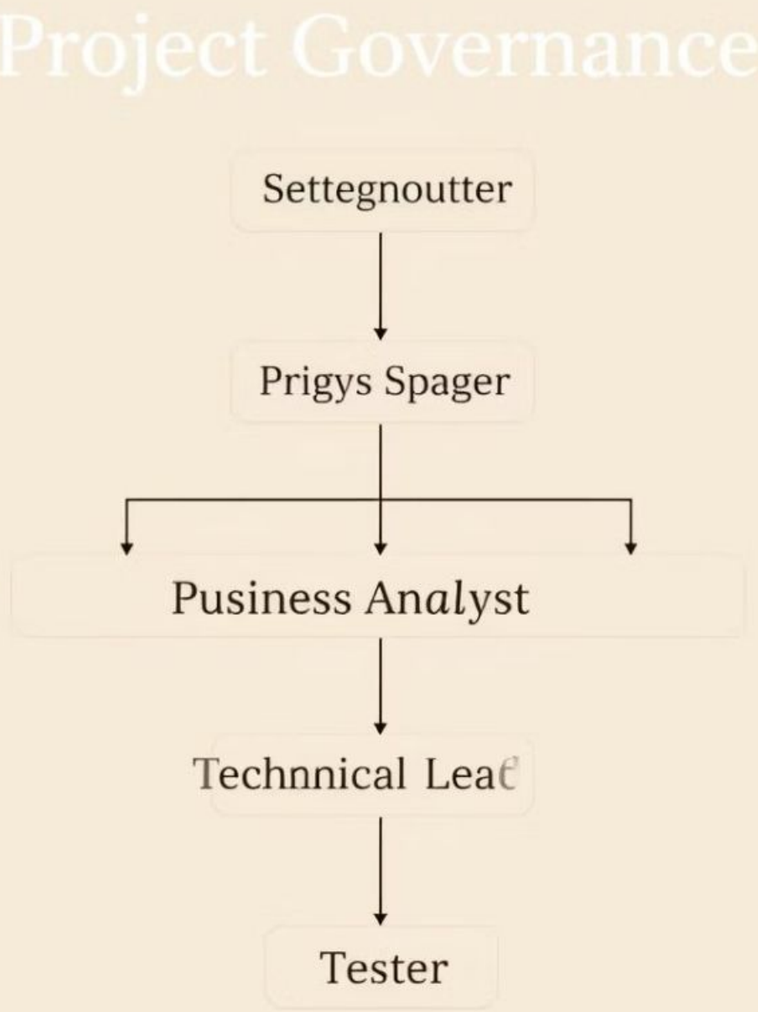
Stakeholders and Organizational Roles

Internal Stakeholders

- SDSU Concessions Dept.: Project Owner, operations coordination
- Gordon Otto: Executive Sponsor, strategic oversight
- Intelligent Iguanas Team: Planning and implementation
- Concession Stand Manager: Operational lead post-launch

External Stakeholders

- Event Attendees: End users providing feedback
- Health Department: Regulatory compliance
- Technology Vendors: POS, RFID, software providers
- SDSU Athletics: Game-day coordination



Project Governance and Key Roles

Executive Sponsor

Gordon Otto: Strategic approval and final go-live sign-off

Project Manager

Tejas Desai: Leadership over scope, schedule, and stakeholder coordination

Technical Lead

Deshik Patel: POS installation and system integration

Inventory Lead

Manaswini Gopala: RFID logistics and testing

Objectives, Deliverables, and Scope

Key Objectives

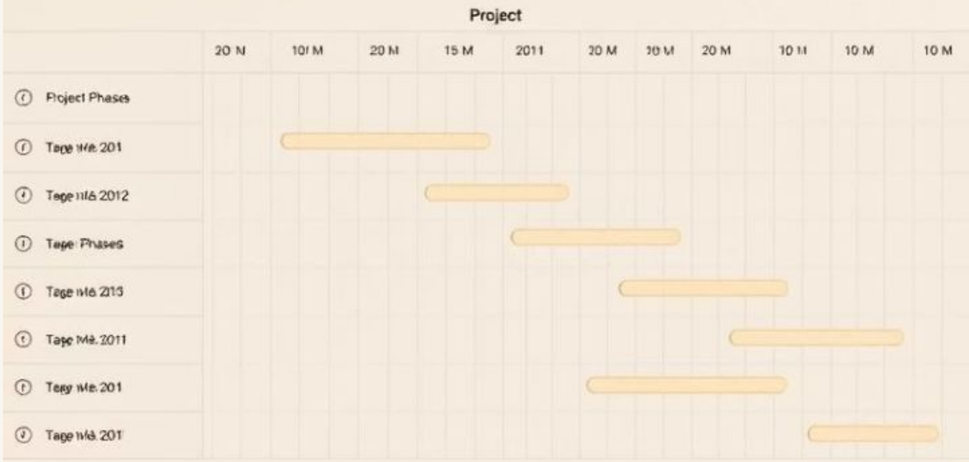
- Implement mobile ordering app
- Reduce average wait time to under 5 minutes
- Train 100% of staff within 3 weeks
- Achieve less than 2% inventory variance

Scope Highlights

- Mobile app development and deployment
- POS terminal integration
- Staff training and media
- RFID tagging and real-time alerts

Project Schedule and Work Breakdown Structure

Phase	Description	Duration
Planning & Requirements	Define scope, gather requirements	4 weeks
System Design & Vendor Setup	UX/UI design, vendor selection	3 weeks
Development & Integration	App build, POS and RFID setup	6 weeks
Staff Onboarding	Training sessions and guides	4 weeks
Testing & Feedback Loop	User acceptance testing and surveys	4 weeks
Full Launch	Deployment and monitoring	1 week



Risk Management and Mitigation

Key Risks

- POS or RFID integration failure
- Staff resistance to digital tools
- Vendor delays in hardware delivery
- App crashing on event day
- Budget overruns

Mitigation Strategies

- Early integration and sandbox testing
- Incentivize training and provide support
- Backup suppliers and pre-orders
- Full load testing and rollback plans
- Weekly budget reviews and contingency activation

Quality Management and Assurance

Quality Goals

Crash-free app usage with UX rating above 4.5, 100% transaction accuracy, and inventory sync latency under 10 seconds.

Assurance Activities

- Peer reviews of technical components
- User acceptance testing with attendees and staff
- Live simulations during mock events
- Feedback surveys post-training and launch

Monitoring, Communication, and Conclusion

Communication Plan

- Executive Sponsor: Biweekly Zoom and email updates
- SDSU Concessions: Weekly in-person dashboard reviews
- Team Members: Weekly Slack and Google Meet updates
- Vendors: Biweekly email and Zoom integration reports

Conclusion

Queue-Free modernizes concession operations, enhancing customer experience and operational efficiency. Scheduled for completion by August 31, 2025, it positions SDSU as a leader in smart event management through structured management and team commitment.