**Project Plan**

**ShiftSmart**

**<Sriven Security>**

|  |  |
| --- | --- |
| Industry Partner | Sriven Security |
| Primary Instructor | Anjana Shah |
| Team Member | Harin Reddy |
| Team Member | Manvi Gumber |
| Team Member | Meet Patel |
| Team Member | Shyam Patel |

Document Revision History

|  |  |
| --- | --- |
| Revision # | Date |
| V0.1 | October 1th, 2024 |
| V0.2 | October 2nd, 2024 |
| V0.3 | October 4th, 2024 |
| V0.4 | October 5th, 2024 |

**Table of Contents**

**1. Executive Summary**

The following describes the project to be executed.

|  |  |
| --- | --- |
| Objective | The objective of the Worker Scheduling Project is to automate employee shift scheduling, provide a user-friendly platform, enable easy shift swaps and call-offs, integrate with payroll systems for accurate payments, and provide managers with analytics to optimize workforce management. This will enhance efficiency, reduce manual work, and improve employee satisfaction and business operation. |
| Corporate Goals Addressed | This project supports the company’s goals of increasing operational efficiency, Optimizing Workforce Management  and Streamline Payroll integration. By automating shift scheduling, it addresses key issues related to manual scheduling conflicts, and last-minute scheduling changes, all while providing updates through notifications. |
| Planned Start Date | September 13th, 2024 |
| Planned End Date | March 28st, 2025 |

**2. Project Approvers, Reviews and Distribution List**

Approvers, reviewers and distribution list

|  |  |  |  |
| --- | --- | --- | --- |
| Project Role | Name | E-mail | Date |
| Team Member | Meet Patel | meetdipakbhai.patel@gmail.com | October 6th,2024 |
| Team Member | Harin Reddy | harinreddy.ramasani@georgebrown.ca | October 6th,2024 |
| Team Member | Manvi Gumber | Manvi.gumber@georgebrown.ca | October 6th,2024 |
| Team Member | Shyam Patel | Shyamdhimmatkumar.patel@georgebrown.ca | October 6th,2024 |
| Reviewer | Anjana Shah |  |  |
|  |  |  |  |

**3. Scope**

|  |  |
| --- | --- |
| In Scope | Out of Scope |
| Automated Shift Scheduling based on availability | Does not address the recruitment or onboarding for the new employees |
| CRUD Operations for employees | Managing employee benefits such as healthcare, insurance or retirement plans. |
| Real time shift swaps and call- offs management | System won’t manage or track employee certifications, training, or professional development |
| Payroll and invoice generation based on hours worked | Integration with external payroll systems or providers is not included. |
| Real-time notifications for schedule updates and changes | |  | | --- | | Notifications for non-work-related events |  |  | | --- | |  | |
| Analytics dashboard for employee performance, attendance, and labor costs | Advanced data analytics that are not directly related to shift scheduling |

**4. Deliverables**

This project will deliver the following.

|  |  |
| --- | --- |
| Deliverable | Description |
| Worker Scheduling App | A fully functional application that automates shift scheduling for employees. |
| Employee Management | System functionality for managing employee data, availability, and work history. |
| Shift Swap feature | A feature that allows employees to swap shifts and manage call-offs in real-time. |
| Payroll and Invoice Integration | Integration with payroll systems to automate payroll calculations and invoicing. |
| Notification System | A notification system that sends real-time alerts to employees and managers. |
| Analytics Dashboard | A dashboard providing insights into labor costs, performance, and attendance. |

**5. Assumptions**

This project makes the following assumptions:

1. **Employee Availability Data**: It is assumed that employees will regularly update their availability in the system to ensure accurate scheduling.
2. **Managerial Approval**: Managers will promptly review and approve shift swap and call-off requests to avoid scheduling conflict.
3. **Payroll Integration**: The external payroll system will support seamless integration for accurate payroll and invoicing.
4. **Notification System**: The notification system will reliably send real-time alerts without significant delays or outages.
5. **User Adoption**: Both employees and managers will be adequately trained and comfortable using the Worker Scheduling Application.
6. **Stable Internet Connectivity**: Users will have stable internet access for real-time notifications, updates, and access to the system.
7. **Legal Compliance**: The system will be designed to comply with local labor laws and regulations related to worker hours, scheduling, and payroll.
8. **Data Accuracy**: All data entered during the time of payroll, work hours, etc is accurate and up to date at the time of entry.
9. **User Feedback**: Feedback from users will be actively provided during the testing phase, helping improve system functionality before launch
10. **Scalability**: The system will be able to scale to accommodate an increasing number of employees and multiple locations without performance degradation.

**6. Dependencies**

The following are the internal and external dependencies that will have to be acknowledged and addressed:

1. **Notification System (External Dependency)**: The external system must be fully operational to send real-time notifications (e.g., email or SMS providers) must be reliable and fast to alert employees and managers regarding shift changes, approvals and other updates promptly.
2. **Employee Data Management (Internal Dependency):** Accurate and up-to-date employee information, including availability, must be maintained within the system for scheduling purposes.
3. **Managerial Oversight (Internal Dependency)**: The project’s success is dependent on managers reviewing and approving shift changes, swaps, and call-offs promptly.
4. **Technical Infrastructure (Internal and External Dependency):** The project depends on reliable internet access, server uptime, and database performance to ensure seamless real-time functionality.
5. **Compliance with Labor Laws (External Dependency):** The system must be updated to reflect any changes in local labor laws and regulations that could affect scheduling and payroll compliance.
6. **Third-Party Tools (External Dependency):** Any third-party tools or plugins used in the scheduling application must be compatible with the existing infrastructure and receive timely updates and support.

**7. Risk Management**

|  |  |  |  |
| --- | --- | --- | --- |
| Potential Risk | Severity (H/M/L) | Likelihood (H/M/L) | Management Strategy |
| Integration Failure with Payroll System | H | M | |  | | --- | | Perform thorough testing before go-live, maintain constant communication with the payroll vendor, and have a fallback payroll process in case of failure. |  |  | | --- | |  | |
| Managerial Delays in Approving Shift Swaps | H | H | |  | | --- | | Establish a clear protocol for approval timelines and set reminders for managers to ensure timely reviews of shift swap and call-off requests. |  |  | | --- | |  | |
| Data Inaccuracy in Employee Availability | M | L | |  | | --- | | Implement validation checks and provide an intuitive UI to minimize input errors. Use reminders to prompt updates. |  |  | | --- | |  | |
| System Downtime or Server Failure | H | M | |  | | --- | | Ensure redundancy and backup systems are in place; conduct regular system maintenance. |  |  | | --- | |  | |
| Notification System Failures | M | H | |  | | --- | | Utilize multiple channels for notifications (email, SMS) and establish a backup notification process to ensure alerts are sent out reliably. |  |  | | --- | |  | |
| Insufficient Testing of the Application | H | L | Develop a comprehensive testing plan that includes unit, integration, and user acceptance testing (UAT) to identify and resolve issues before launch. |
| Data Security Breach - Unauthorized access to user data | H | L | Implement robust data security measures, includin g encryption and access controls. Regularly audit and test security measures. |
| Third-party Dependencies | M | M | Establish clear communication channels with third-party providers. Monitor their progress and have backup options. |

**8. Communication**

**Reporting**

The following reports will be produced:

|  |  |  |
| --- | --- | --- |
| Report | Audience | Frequency |
| Shift Scheduling Report | Managers | Weekly |
| Payroll and Invoice Report | Payroll Administrator | Bi-Weekly |
| Shift Swap and Call off Summary | Managers | Daily |
| Employee Performance Analytics | Managers | Monthly |
| Labor Cost | Payroll Administrator | Monthly |
| Attendance Report | Managers | Weekly |

**Meetings**

The following meetings/communication will be established.

|  |  |  |  |
| --- | --- | --- | --- |
| Meeting | Purpose | Attendees | Frequency |
| Project Kickoff | The initial meeting will mark the start of the project of the project which involves project team, stakeholders and possible partners. The purpose is to introduce the project, define roles and responsibilities, and set initial expectations | Project Team and Stakeholders | Once |
| Status Update | Regular team meetings will be held at predefined intervals (Bi-weekly) to discuss project progress, challenges, and upcoming tasks. These meetings ensure that the project team is aligned and can address any issues promptly | Project Team  And Managers | Bi-Weekly |
| Milestone Review Meetings | When significant project milestones are reached, milestone review meetings will be conducted. These meetings assess the completion of milestones, their impact on the project, and any adjustments needed for the next phase. | Project Team | After milestone Completion |
| Change control board meetings | If changes to project scope, requirements, or resources are proposed, change control board meetings will be convened to evaluate these changes and make informed decisions about their approval or rejection. | Board members, Project Team | As needed |
| Testing Meetings | Quality assurance and testing meetings will occur during the testing phases of the project. The purpose is to review testing results, identify issues, and prioritize bug fixes and improvements. | Project Tean | Bi-Weekly (Testing Phase) |
| Stakeholder Review | Provide high-level project updates to stakeholders. These updates may take place in the form of email, reports or presentations, depending upon stakeholder preferences. | Stakeholders and Project Lead | Quarterly |
| User Feedback and testing meetings | User feedback and testing meetings will involve the project team and user representatives. They will review and propose improvements based on user feedback. | Project team | As needed (during testing phase) |
| Emergency Response Meeting | Addresses urgent issues that arise, assessing impact and developing a resolution plan. | Project Team | When needed |
| Online collaboration platform | Collaboration tools such as Slack, Microsoft Teams, or project management software will be used for ongoing communication and document sharing among team members and stakeholders. | Project Team and Stakeholders | Continuous |

**9. Task Listing (WBS- Work Breakdown Structure)**

The following resource proposal template summarizes the resource hours committed to this project, upon final approval of this document.

|  |  |  |  |
| --- | --- | --- | --- |
| Reference | Tasks | Duration | Dependency |
| A | Project Initiation | 1 month | None |
| B | Requirements Gathering & Analysis | 3 weeks | A |
| C | System Design & Architecture | 3 weeks | B |
| D | Development of Core Features | 2 months | C |
| E | Integration with External Systems | 1 month | D |
| F | Testing and Quality Assurance | 1 month | D, E |
| G | User Training and Documentation | 0.5 month | F |
| H | Deployment and Final Sign-Off | 0.5 month | G |

**10. Gantt Chart**

Create a detailed Gantt Chart from your Task Listing(Use any software tool and paste the image or upload as a separate file that can be opened as pdf/doc/xls)

Below is an example:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Task | Period | | | | | | | | | | Completed |
|  | Dates | Dates | Dates | Dates | Dates | Dates | Dates | Dates | Dates | Dates |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

**11. Milestones**

|  |  |  |
| --- | --- | --- |
| Major Activity or Milestone | Estimated Milestone Target date | Owner/Reviewer Team Members |
| Project Kick-Off | September 13th,2024 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Completion of Requirements Gathering | October 7th, 2024 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Design and Prototype | December 10th, 2024 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Development Phase | March 4th, 2025 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Testing Phase | March 5th, 2025 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Business Partnerships | April 1st, 2025 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Quality Assurance and Testing | March 15th,2025 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Launch and Deployment | March 15th,2025 | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |
| Ongoing Maintenance and Support | Continuous | Manvi gumber, Shyam Patel, Harin Reddy, Meet Patel |

**12. RAM – Responsibility Assignment Matrix**

Create a RAM from your Task Listing. A sample is shown below:

PROJECT TEAM RESPONSIBILITIES

Project Name: Shiftsmart

| TASK | Meet | Harin | Manvi | Shyam | Anjana |
| --- | --- | --- | --- | --- | --- |
| Project Initiation | P | P | P | P | S |
| Requirements Gathering | P | P | P | P | S |
| Design and Prototyping | P | P | P | P | S |
| App Development | P | P | P | P | S |
| User Testing and Feedback | P | P | P | P | S |
| Integration Testing | P | P | P | P | S |
| Marketing and Promotion | P | P | P | P | S |
| Quality Assurance and Testing | P | P | P | P | S |
| Launch and Deployment | P | P | P | P | S |
| Project Review | P | P | P | P | S |
| Ongoing Maintenance and Support | P | P | P | P | S |



**13. Approval**

The signatures below indicate their approval of the contents of this document.

|  |  |  |  |
| --- | --- | --- | --- |
| Project Role | Name | Signature | Date |
| Product Owner | Shyam Patel | S.D. Patel | 2024-10-04 |
| Product Owner | Meet Patel | M.D.Patel | 2024-10-04 |
| Product Owner | Manvi Gumber | Manvi Gumber | 2024-10-04 |
| Product Owner | Harin Reddy | Harin Reddy | 2024-10-04 |
|  |  |  |  |
|  |  |  |  |