# Statement of Work (SOW)

## SOW Format

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## Background

Los Portales requires an app in which tickets for plays can be sold and sales can be managed. The project is meant to ease ticket buying for customers and simplify management of sales for administration of theater. This document will contain graphs and charts related to the progress of the project.

## Objectives

The main objective of the final product is for customers to be able to choose seating and purchase tickets for those seats. Theater administration shall be able to add plays, showtimes, and pricing for seating.

## Scope

The project will be small to moderate in terms of breadth and shall have few limitations.

## Tasks

Contractor shall work on deciding software requirements which may take up to approximately 10 hours. Design requirements will then be decided and may take up to 8 hours. A test plan will then be made and may take up to 8 hours.

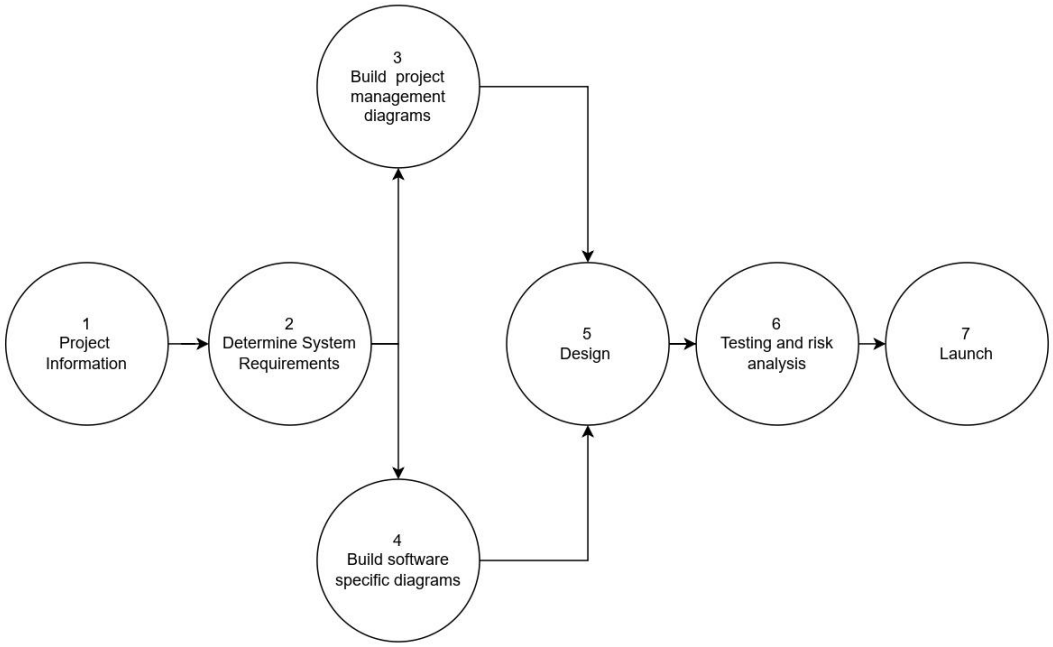


*Figure 1 Pert Diagram*

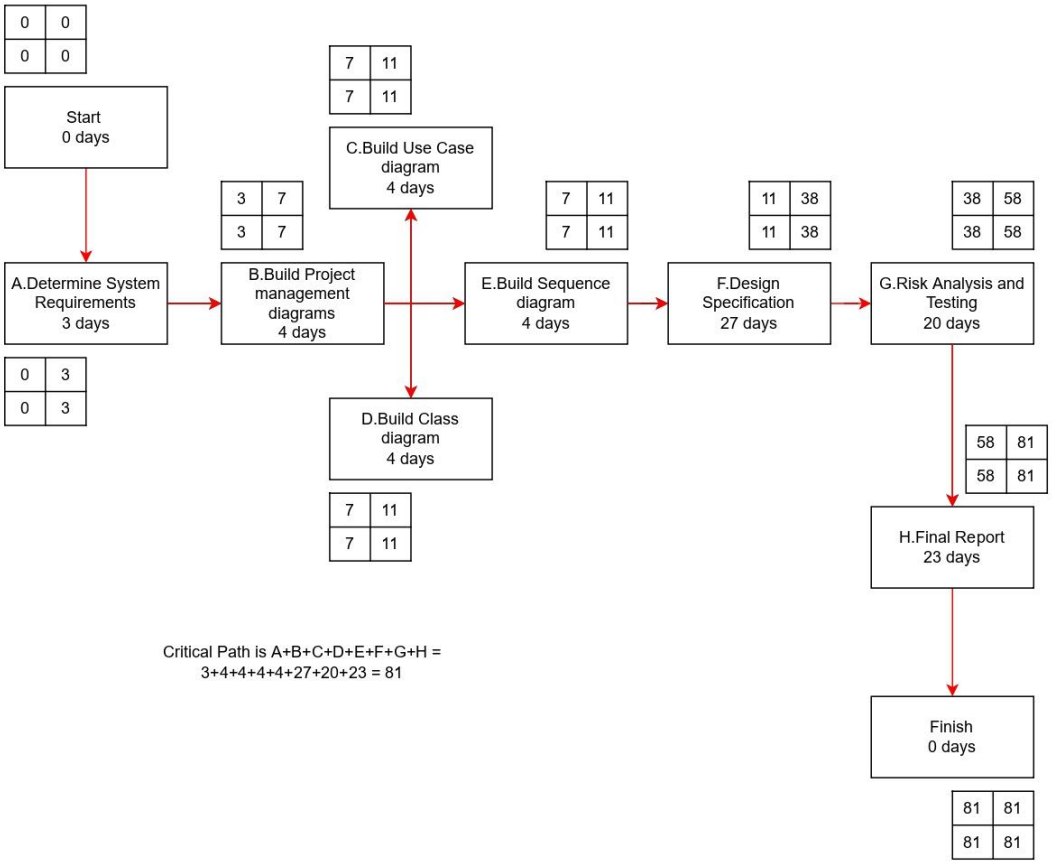


*Figure 2 Critical Path Diagram*

## Delivery

Deliverable Schedule

| Deliverable | Description | Quantity/Media | Date Completed |
|---|---|---|---|
| 1 | Statement of Work and Software Requirement Specification | 1 copy uploaded to GitHub | 02-27-2022 |
| 2 | Software Design Document | 1 copy uploaded to GitHub | 03-27-2022 |
| 3 | Software Test Plan | 1 copy uploaded to GitHub | 04-17-2022 |
| 4 | Final Report | 1 copy uploaded to GitHub | 05-11-2022 |

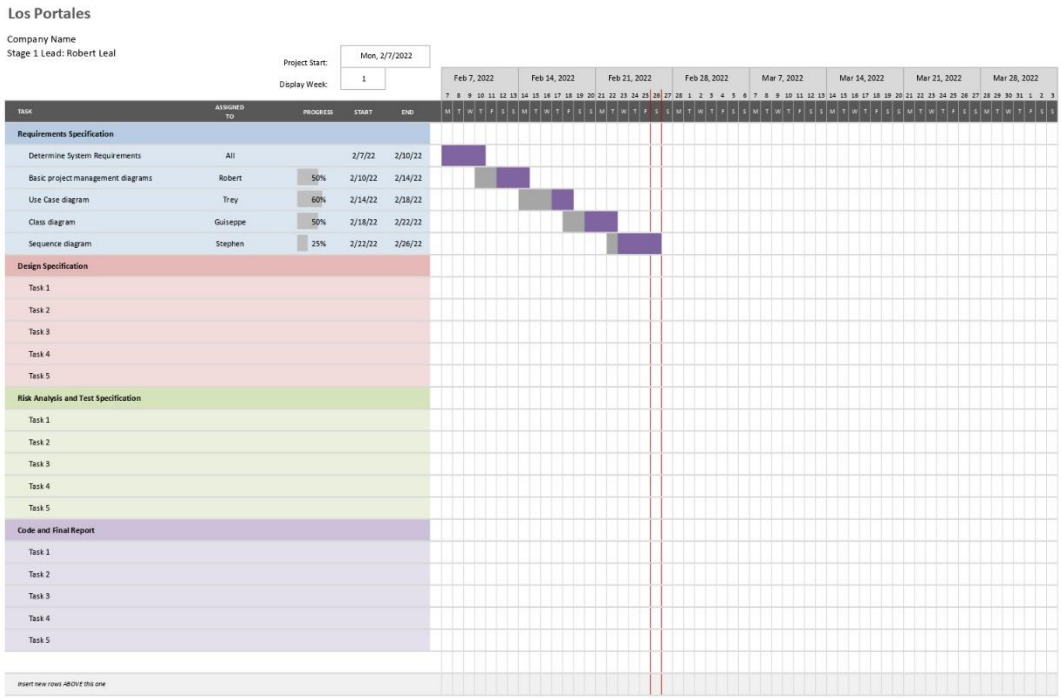


*Figure 3 Gantt Chart*

## Government-Furnished Property, Material, Equipment, or Information (GFP, GFM, GFE, or GFI)

### Security

The security for this system software includes role-based access and encrypted credential information. Furthermore, the login fields will be sanitized to prevent malicious code from being run on the server.

### Travel

There are no foreseeable travel requirements.

### Special Material Requirements

There are no foreseeable special material requirements.

### Other Unique Requirements

There are no foreseeable unique requirements.

### Place of Performance

Performance will be at the Contractor’s facility.

### Period of Performance

Period estimated to complete project starts 02-07-2022 and ends 05-11-2022

## Estimated Cost

Functional requirements:

1. -Show a graphical, interactable seating chart
2. -Contain a module where admin can add plays with schedule and pricing by seat
3. -Have a way for customers to register
4. -Have a way for customers to choose and purchase seating
5. -contain a shopping cart
6. -give a report of the transaction
7. -simulate the sell using a credit card
8. -have a login for theater admin
9. -allow admin to generate reports
10. -must be online and optimized for tablets and mobile devices

Consider all functions to be of average complexity.

1. EQ
2. EI
3. EI
4. EI
5. EO
6. EQ
7. EIF
8. EI
9. EQ
10. ILF

Unadjusted Function Points (UFP)

| Function | # | Complexity | UFP |
|---|---|---|---|
| EI | 4 | 4 | 16 |
| EO | 1 | 5 | 5 |
| EQ | 3 | 4 | 12 |
| ILF | 1 | 10 | 10 |
| EIF | 1 | 7 | 7 |
| | | | UFP: 50 |

| Adjustment Factor | Points |
|---|---|
| Data communications | 5 |
| Distributed data processing | 4 |
| Performance | 3 |
| Heavily used configuration | 2 |
| Transaction rate | 5 |
| Online data entry | 5 |
| End-user efficiency | 3 |
| Online update | 5 |
| Complex processing | 2 |
| Reusability | 1 |
| Installation ease | 1 |
| Operational ease | 3 |
| Multiple sites | 2 |
| Facilitate change | 3 |

VAF = 0.65 + (0.01 * $\sum_{i=1}^{14} C_i$)

$\sum_{i=1}^{14} C_i$ = (0*0)+(1*2)+(2*3)+(3*4)+(4*1)+(5*4) = 0+2+6+12+4+20 = 44

0.65 + (0.01 * 44) = 1.09

Value Adjustment Factor (VAF) = 1.09

Adjusted Functional Points (AFP) = 50 * 1.09 ≈ 55

4th generation Languages
8 Avg FP hrs
53 Avg code lines for FP

LOC = 53*55 ≈ 2915 Lines of Code (LOC)

Basic model, organic type

Effort(E) = $2.4(2915/1000)^{1.05}$ ≈ 7.4 persons/month

Time(T) = $2.5(7.4)^{.38}$ ≈ 5 months

Avg staff size(P) = 7.4/5 ≈ 2 people

Productivity (Pr) = 2915/7.4 ≈ 394 LOC

Monthly salary for programmers $3,000

Equipment: $35,000

Cost = 7 * 3000 = 21,000 + 35000 = $56,000