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 4 days. Design requirements will then be decided and may take up to 28 days. A test plan will then be made and may take up to 5 days. The Pert diagram shown in Figure 1 shows a flow of the tasks that are being planned. The Critical Path diagram shown in Figure 2 shows duration for each task.
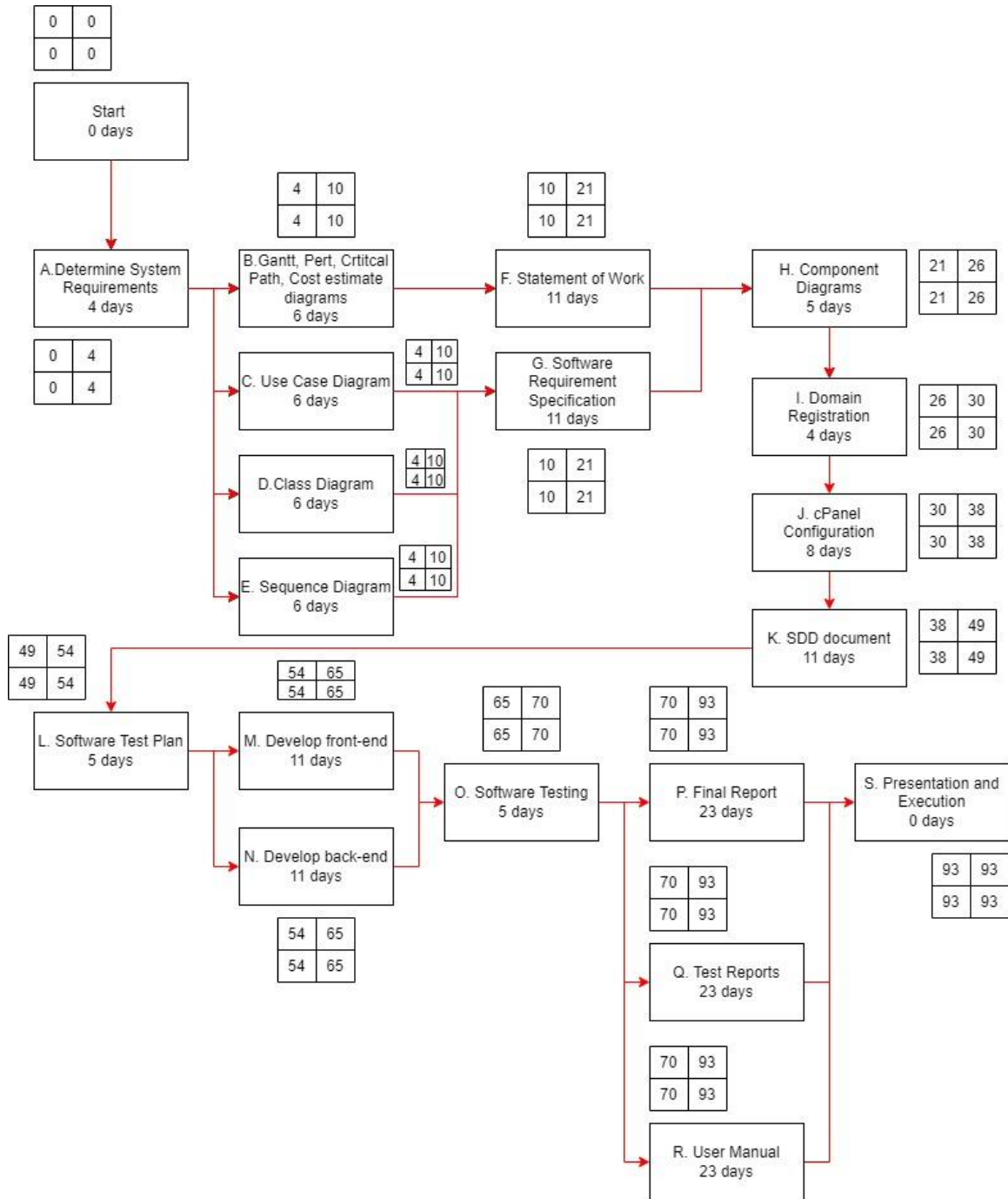
Figure 1 Pert Diagram

Figure 2 Critical Path Diagram

Delivery

<u>Deliverable Schedule</u>

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

The following Gantt Chart assists with deliverables as it gives a visualization of when tasks should be complete.
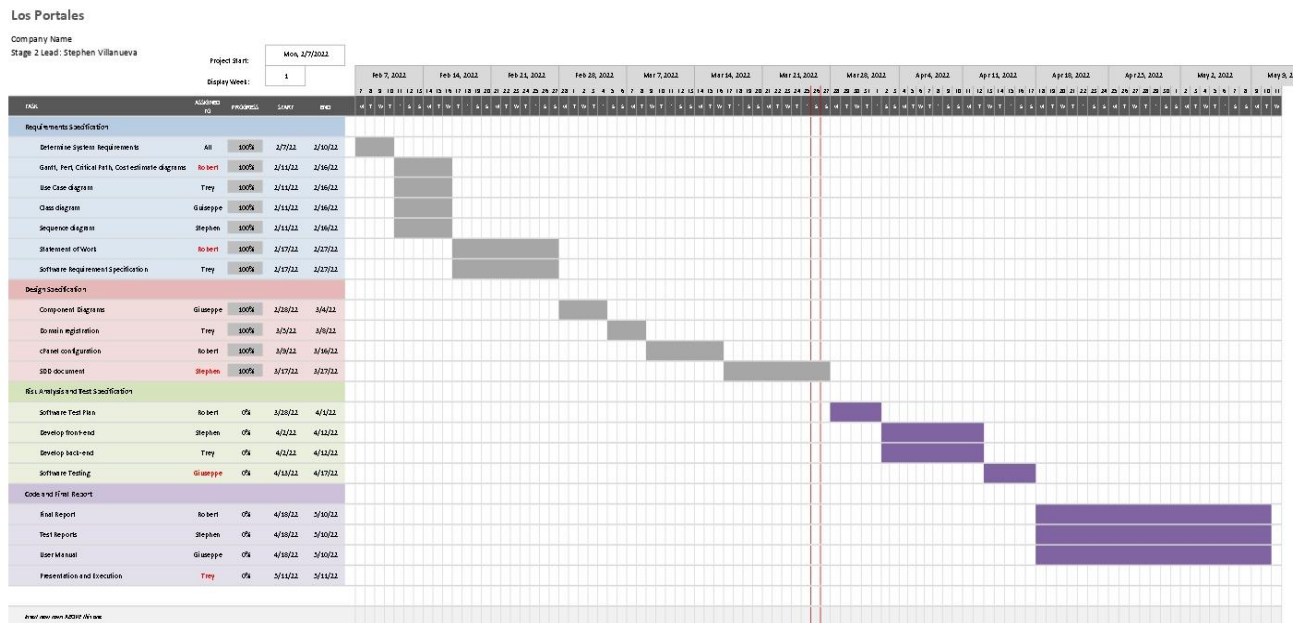

Figure 3 Gantt Chart

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