1. **Overview**

**Sample Only**

This document was submitted by students in a previous class. Their requirements were different from yours. We offer it only as a sample of what a project was for that class. Copying this document, in whole or in part, and submitting the result as your own work, would be a violation of the honor code.

The Surf Hotel is 35 room inn with a beachfront location on Block Island, Rhode Island. This property has been on the market for two years and the purchase price is indicated at $6 million. The purpose of modeling this investment is to make a decision for a potential investment into this property, by creating a robust model incorporating all relative costs incurred on top of an initial investment, in order to predict the profitability of the business. Going forward, we will refer to this project as TheSurf.

The model created will be useful for the owner in deciding whether this investment will produce a profit. The Surf’s managers will be able to determine their personnel needs, the average daily rate, and occupancy levels that must be achieved and maintained to expedite a profit. If the owner does decide to move forward with the purchase, this model will be useful for the management as well to assist in determining room rates, budgeting, and profitability to make sure the property is on schedule to achieve the appropriate projected returns, on a monthly basis.

Due to its location being very seasonal, the property will not be open year-around. The demand simply does not exist to cover the variable expenses incurred during the off-season. The model will take into account these months with no revenue, but will still incur the appropriate expenses. It will help determine the ideal number of months in which the property should remain open and closed to realize the best return in the shortest amount of time.

In order to create a more robust model, there will be an alternate scenario proposed that will run the model taking into account decreased demand due to out of control circumstances. For example, a summer where a significant portion of revenue will be generated, may experience bad weather, or the economy may suffer, etc.

Underlying assumption: The numbers used for the project are taken from the research done on the bed-and-breakfast inns of a similar size, price and location. Should these models be used in a real-time decision, historical data for the particular inn should be used as well.

1. **Budget**

Our estimated total budget for this project is 80 hours. The breakdown of this estimate is as follows:

*Planning (12 hours)*

Problem Definition 5 hours

Evaluate 2 scenarios 5 hours

Tasks allocation among Team 2 hours

*Modeling (30 hours)*

Implementation of the model

and its components 30 hours

*Documents (33 hours)*

Midpoint Status Report 3 hours

Final Report 10 hours

User Guide 10 hours

Reference Guide 10 hours

*Execution (5 hours)*

Two Scenario Selection 2 hours

Observe the model behavior 3 hours

1. **Team**

*TheSurf Team*:

XXX1 XXX1@YYY1.ZZZ

XXX2 XXX2@YYY2.ZZZ

XXX3 XXX3@YYY3.ZZZ

1. **Inputs, Parameters, and Outputs**

*Input Streams*:

1. Occupancy rate: the projected occupancy rate of the hotel
2. Variable expenses: food, utilities, supplies, etc.
3. Average daily rate: the average price charged for rooms
4. Personnel: personnel needed, hourly wages

*Parameters:*

1. Purchase price: property price and realtor fees
2. Fixed expenses: taxes, amortization rate, etc.
3. Average daily rate: the average price charged for the hotel rooms
4. Discount rate: the market interest rate used to discount future cash flows to present value
5. Emergency fund: certain amount of money to set up to deal with emergencies

*Output Streams*:

1. Revenues: Future discounted revenues generated by projected occupancy
2. Profits: Future discounted profits after expenses incurred, taxes, and depreciation
3. **Schedule and Milestones**

|  |  |  |
| --- | --- | --- |
|  | *Date* | *Milestone* |
| 1 | 5:35 Oct. 8 | Turn in Project Proposal & Requirements Checklist for Word Documents |
| 2 | October 9 | Begin Problem Definition, Objectives, Work Allocation, and Excel Checklist |
| 3 | October 17 | Finish Problem Definition and Objectives |
| 4 | October 24 | Finish Work Allocation and Excel Checklist |
| 5 | October 25 | Begin any revisions necessary; Begin developing model |
| 6 | 5:35 Oct. 29 | Turn in Midpoint Status Report & Requirements Checklist for Excel Documents |
| 7 | November 29 | Finish model construction with final conclusion to problem |
| 8 | December 1 | Begin User Guide, Reference Guide, and Final Report |
| 9 | December 16 | Finish User Guide, Reference Guide and Final Report |
| 10 | 5:35 Dec. 17 | Turn in Final Report, Reference Guide, User Guide, and Project Model |

1. The team has finished with drafting the proposal and organizing any and all specific requirements and is now ready to begin construction of the project as a whole.
2. Now that a schedule for the progression of the project if finished and everything is organized, the team will now be able to start allocating work properly along with defining the problem and objectives for the project.
3. In order to see how to move forward with work allocation and a task list, we will need to define the problem at hand and any objectives we have.
4. Our problem is defined and our objectives are set fourth. Before beginning to develop the model, an allocation of work is necessary. The Excel checklist should also be completed by now.
5. A proper review of everything laid out so far is needed to move forward. Any revisions necessary will be made at this point. TheSurf team will now be ready to begin construction of the model.
6. Everything completed so far ties into the Midpoint Status report, and Requirements Checklist for Excel, which are due by 5:35 P.M. October 29th.
7. A month later, construction of the model should be in completion stage.
8. Now that the model has recently been constructed, the user guide, reference guide, and final report can now be started.
9. TheSurf team will wrap up any loose ends by December 16th in order to be ready to turn in the next day.
10. The Final Report, Reference Guide, User Guide, and Project Model will be turned in by 5:35 P.M. December 17th.