Executive Summary

for Images Photography Studio

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Overview

The system currently under development by our team is purpose built to suit the needs in assisting the management of Images Photography Studio. Currently this database will be used to log and track employees, orders, event and all the additional data needed to easily maintain and organize the business. The business environment is that of a contracting photography group. There is a collection of regular and freelance photographers which can be booked for events ranging from corporate conferences to weddings in advance based on a schedule set by those photographers. A notable aspect of this company’s environment is that all photos taken are required to be held for an average of six months after events in case more proofs are requested by the customer but can be held longer than this at customer request. Each of these aspects requires a degree of flexibility in the database, although most of the functionality which would enable this would be implemented in the front-end that photographers would interact with, outside of the scope of our contract with the company.

Planning Phase

In preparations for creating a database to fulfill our clients need for their photography business, we created a diagram showing the relationship between a collection of several tables that present relevance and allow the end user to easily use and expand upon if desired in the future. We created a services table to store basic data to a service that the business may provide. It stores what the service is, who ordered the service and where the service will be held. A locations table expands the location ID, within services, into several parts for readability and usability. An employee’s table Is included to describe each employee by their name, split by first and last, their hire date, what their role, or roles, are within the business as well as an active trait to show whether the employee is currently hired or not. A roles table holds each role, the name and description of what that roles responsibilities are as well as a active trait to show whether the role is currently in use or decommissioned. A customers table allows us to store certain information such as their address and with that we can ship their order if desired. Attached is a contract table that signifies if they have signed the contract or not with an integer value as Boolean is not supported by Oracle. An orders table tracks the order, special instructions from the customer, the cost, whether they paid in full or not and the customer who ordered it. Each order is attached to a set of proofs which is also provided in a table. A packages table is provided to hold information relevant to each package the customer can buy such as price and contents. In the pictures table we provided a field for a file path to allow easier accessibility to the photos.

Initial Testing

Once the database was planned out and a development version was created, same data needed to be generated to run initial tests. The team used a website, generatedata.com, to create test data for each of the tables. The SQL insert scripts created by this site were ran to place that data into the database. Due to the number of required tables this process took a decent amount of time but was able to create a decently filled dev environment for testing. As well, it should be noted that the data created by this site was tweaked slightly to ensure there would be patterns in the data for reports to be run against. As a quick example the names of photographers were used in several pieces of data, and some dates were changed to ensure multiple returns based on a single day report.

While the sample data is not at the same volume as the data which would be created in a production environment, it will still be able to effectively determine whether the database suits the needs of the company. The team has generated enough data to ensure that the reports are functional and the database stores all the necessary information. By populating the developing database with sample data which follows patterns similar if not identical to real data, the team will have viable information to run reports against.

Infrastructure Plan

The database used by Images Photography Studio needs to be able to hold around seven months of data for the average event. Most of the data stored will be text or small pieces of data such as dates and transactions. For the transactional database, we expect a requirement of 40 gigabytes a year. We based this on the number of transactions made within previous years of operation. The company will also need to store images for all the events that are shot. The average quality DSLR photograph 24 megabytes of storage, meaning that events will require 2.4 gigabytes and portraits will require 1.2 gigabytes of data. Based on the business data provided, we expect to need 1 terabyte of storage for seven months of photographs. As for the data warehouse, we initially estimate it to require 38 gigabytes a year. This number per year will grow with an increase in transactions and more storage will need to be purchased overtime to maintain the needs of the warehouse. For the infrastructure of storing these three forms of data, we suggest using cloud storage instead of investing in physical hardware. This is because physical database systems are expensive to operate, the cloud allows efficient storage with low risk. After doing a quick assessment, we determined that Amazon Web Service had affordable pricing and ample scalability for the future.

Reporting Capabilities

**Photographer Schedule** - will provide basic information about services provided during a specified period. It also provides a reference to the contract number so that the photographer can lookup specifics about each service.

**Weekly Schedule** - gives a summary of all activities for each day of the week. It sorts the activities each day by time and can be run for any given week.

**Client Report** - provides information about individual clients and is usually used to gather a list of services provided for a given corporate client.

**Photographer Availability** - will provide the availability of a specified employee based off of that employee’s name and a date. The output will return the employee’s available hours for that day.

**Popular Services and Packages** - will be useful to gather what services are most popular, as well as what packages are chosen most per each service type.

**Popular Locations** - will allow the user to check what locations are most popular and even break it down further by service type.

All reports will be run by calling the needed procedure with the necessary parameters