Toronto Aquarium

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**Toronto Aquarium**

**Background**

Toronto aquarium, established in 1987 provides with an outstanding display of various kinds of aquatic creatures to our marine life loving visitors. Our great selection of creatures include: Catfish, Goldfish, Blowfish, Clownfish, Guppy, Zebra Loach, Angelfish, Puffer fish, Rainbow fish and many more. The company is located in downtown Toronto on Front Street with a view of lake Ontario.

**Company Structure**

The company is divided into different departments such as maintenance department, finance department, human resources and customer services. Our company exhibits a hierarchical structure in which each department is connected to the central managerial department at the top of the hierarchy. The top managers oversee the whole company’s operations. They deal with major decision making such as choosing suppliers, choosing products and many other tasks. Company’s finance department deals with purchase, customer sales, accounting, invoices, taxation, and employee salaries among other things. Company’s maintenance department deals with cleaning and maintaining fish tanks as well as the park itself, including the washrooms and show floors. The HR department deals with hiring new employees, training them and if need be replacing them.

**Employees**

The company currently has 40 employees divided into many sub categories, for example, manager, cleaners, sales representatives and customer service representatives. Each of these employees takes orders directly from the manager. The manager provides each department with instructions on daily basis. These employees are paid on hourly basis determined by the management. Our core employees are all full time and receive full time benefits. We also hire seasonal workers to cover for the extra busy months.

**Aquarium Experience**

There are several different fish tanks located at different areas of the store, each containing different types of fish. Each tank is labelled according to its contents for visitor convenience.

These fish tanks are cleaned and maintained on regular basis. There are several customer service representatives on the floor to help the visitors. Every customer is free to walk around and look at the fish tanks. The aquarium also does school tours for children in elementary school. For those tours, we have guilds who educate the children about many different kinds of fish in the sea.

**Company Policies**

Visitors are asked not to touch or temper with the tanks. Doing so will get them kicked out without a refund, if they were students we would kindly ask the teachers to keep an eye on them. Visitors pay for any damages they may have caused.

**Functional Requirements**

Manager directs employees by giving them instructions. They are also allowed access to information to employees. Finance department deals with transactions such as sales or purchases, and ticket prices. In addition, information about the company’s finances should be kept on their own system. Employees guide visitors also providing assistance when needed. Receptionist sells tickets to visitors and deals with customer service. Maintenance department maintains all tanks in the system. Tanks should be kept clean, being cleaned every week. The number of fish in each tank should be kept track of every day. Supplies should be informed when new fish are needed.

**Specifications**

Our database system will contain many features. In addition, each type of employee would have access to different features for security purposes.

Employees

-allowed to query for basic information about fellow co-workers when customers request it.

-allow to see cost of tickets after taxes, along with price range of tickets.

-check information about tanks and inventory.

Manager

-allowed to see all information about employee’s working under him.

-also allowed to search and sort through employee information.

-check information about tanks and inventory.

System

-keep track of employee and manager wages.

-allow simple calculations related to wages and sales.

-keeps track of employee in change of each tank.

-keeps track of the fish in each tank.

-keeps track of the tanks.

-keeps track of the number of fish in the park.

-fish should not be mixed and matched.

-has error checking, employee cannot have a negative wage, only cleaners are allowed to clean tanks, etc.

-when the fish in a tank all die, resupply the tank with 50 of the fish.

**Finance requirements**

Stores transactions

Sales

Purchases

Ticket prices

Taxes on ticket prices

**Inventory requirements**

Stores product information

Identification number

Name

Price

Quantity available

**Customer support**

Must hold customer information if needed

**Maintenance department**

Stores information of last maintenance for schedule purposes

**Tables**

Employee (Eid, Ename, City, Phone, Title, Wage)

Inventory (Pid, Pname, Quantity)

Tank (Tid, Pname )

Maintenance (Tid, Eid)

Tickets (Type, Price)

**Data Dictionary**

Eid: integer

Ename: string

City: string

Phone: integer

Title: string

Wage: integer

Pid: integer

Pname: string

Quantity: integer

Tid: integer

Type: string

Price: integer

**Changes from Part 1 and Part 2 to Final**

Our project over went many changes the biggest change came from redefining our queries. While previously we had 35 queries many of them were repeats, they were not unique and did not use enough of the concepts learned in class. Though it was a minor change, we also made changes to the enterprise description. We felt that the old description was lacking in some areas and had to update them. Our previous two parts lacked a specifications section, while it was in the 35 queries, we submitted in part two was not included in our report. Our tables also changed between part one, two and this final version. In part one, we only considered two tables. When part two was being worked on we increased the number of tables we had to accommodate the increase of requirements and specifications. The tables stayed the same through part two to this final version. Another big change was our menu program. For part two, we created a basic menu that created tables, populated them and dropped them. We also considered an insert option. Everything was hardcoded in our script. The final version still had insert and drop hard coded; however, we now populated the table from text files, as per the instructions and added the queries into the menu.