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CST 2406 – SYS Analysis and Design

Project Deliverable: Anubis Industries

0. Company Description

Anubis Industries, vision is to change on how we drive today. Its vision is to make driving less stressful, to save the consumer time for finding parking spots, and to make cities more pedestrian safe. Anubis Industries provides two services. One, we act as a taxi company, however we are still different than other taxi companies. For one, all of your cars will be self-driving cars. You can order one of our cars by our mobile application, or visiting our website. You can even specify a time and date on when to pick you up, for example if you want our car to pick you up tomorrow at 12:13 am, no problem! Our car will be there. What also makes this car special is that they can drive from city to city, if you want this car to travel from Boston to New York City, it can do it. These cars are a lot safer, than cars that are being driving, for one these cars won't blink, use their cellphone while driving. Another service that Anubis Industries will provide that, we will park the car for you. For example, if you are driving in Los Angeles, and can't find a parking spot, you call us, or use our mobile application, or visit our website to summon our certified driver. This certified driver job will be to park the car for you, and we even provide choices as well. For example, we can park the car in our garages, or our partner garages, you can even pick out a garage where you would want to park your car. We also give you the option to pick up your car in person, or have one of our certified driver to bring you your own car.

This is implemented in four cities – New York, Los Angeles, Hong Kong, Beijing. Each city has 5 – 10 garages that should be able to hold 500 – 1000 cars. The numbers of employees will vary from cities to cities Hong Kong, for example will have somewhere 2000 – 5000 employees. The number of orders that we receive will also vary from city to city, however we are expecting more order in cities: Hong Kong, and Beijing. We expect to have a minimum of at least 5000 orders a day.

1. Scope definition:

- a. The information that is being designed is to process the transaction fast, and accurately, and to hold larger amount of data every day, since we Anubis Industries will have a minimum of 5000 transactions a day. We need this in place, because right now, it takes around 20 seconds for the transaction to be completed fully, by implementing this information system that will be reduced to 5 – 10 seconds. It is estimated that it will take 8 – 10 months to design, implement and install the information system. To carry out this information system we will need around 500 people.

2. Problem Analysis:

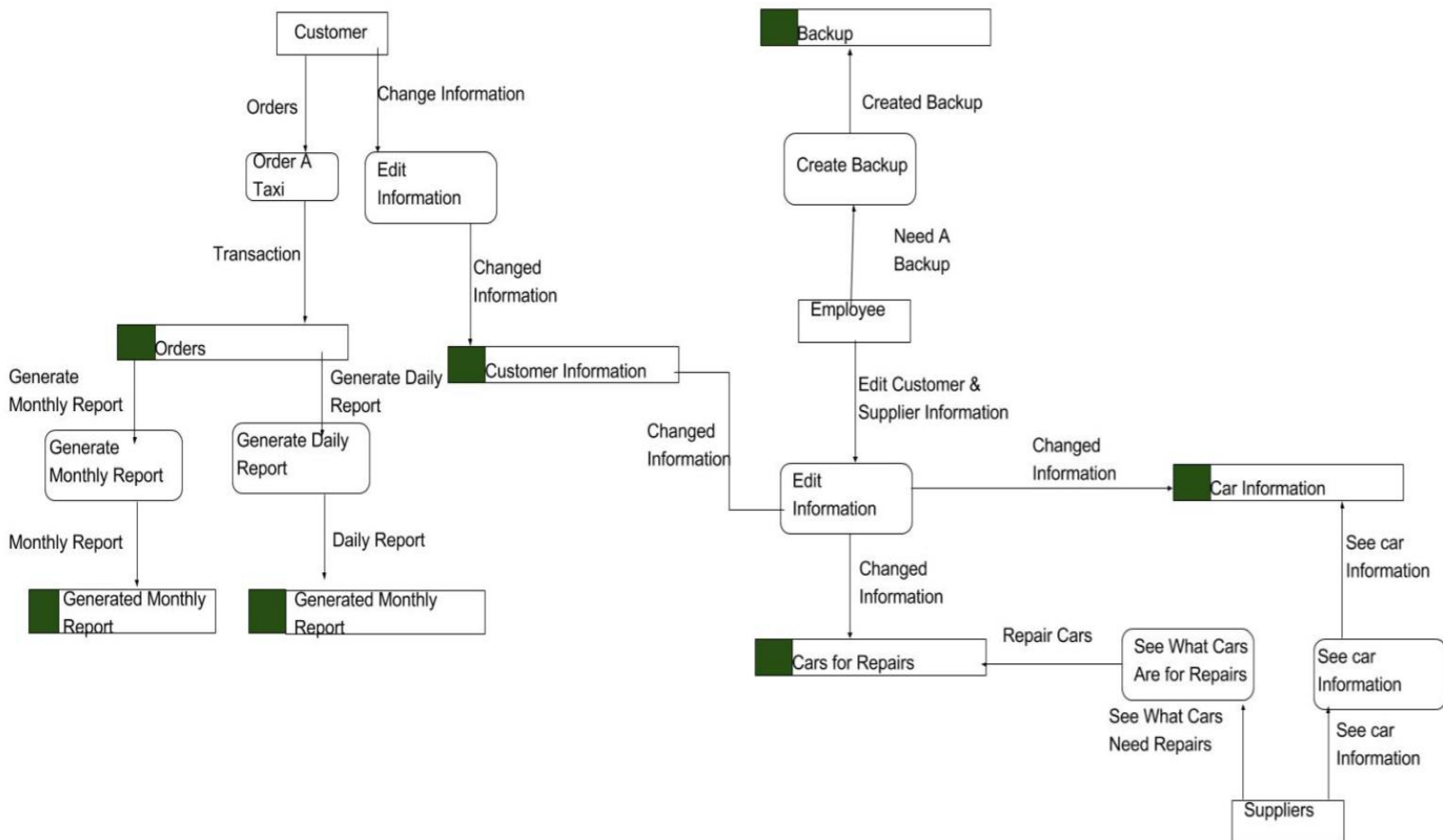
- a. Currently when a customer orders a taxi, it takes around 1 minute to process it. With the new system, it will take around 30 sec
- b. When a customer orders a taxi, and is processed that data get lost, and the customer would need to fill out the transaction process again. With the new system this does not happens
- c. When backing up the server, it would increase the transaction time, and the process of backing up takes too long. With the new system, it will reduce the time of the backups by 30%.
- d. Currently when the customer is logging in, to his web based, or APP to see his itinerary it takes around 1 -2 min. This will be reduced by half.
- e. When there is high traffic the current system cannot handle all the transactions that are taking place, thus it would hang up, or freeze. The new system will have expanded memory, and space to make sure it does not happen.

3. Requirements analysis:

- a. Administration needs:
 - i. To be able to edit the customers, and the supplier's name, address, city, state, zip
 - ii. To be able to back up customers and supplier information.
- b. Suppliers needs:
 - i. To see how much the cars mileage.
 - ii. To see what cars need repairs.
- c. Client's needs:
 - i. To be able to access and order taxi

- ii. To be able to log back in, and change their data.
- d. Company's operation
 - i. Generate report daily about transaction that took place. Also monthly and yearly.
 - ii. Generate reports that shows where are the most transaction are taking place, and what time.

4. Logical Design



5. Decision Analysis

a. Technical feasibility

- i. The system that is being purposed is not too difficult to build, we will need a one or two senior developer. We will also need around 10 junior developers. Also we will need 3 to 4 database administration, and 3 to 4 web programmer.

b. Operational feasibility

- i. To build the customer logging webpage, and the APP to see his itinerary page, should take around 4 – 5 weeks. To reduce the timing of the order of a taxi it will take around 3 – 5 weeks. For the new system to handle more transaction, and make that the data is lost, this will take time since we will need to figure out where it needs to improved, and why data is being lost, so we estimate this can take about 3 – 6 months.

c. Economic Feasibility

- i. Personnel Cost – The salaries of the senior and junior developers, database administration, and web programmers, is estimated to cost between \$1.5 million to \$2 million.
- ii. Computer Usage & Software – We will need to buy a certificate for a database storage mechanism which should cost around \$5000. Also backups will be uploaded to an online vendor, which is going to cost around \$500 yearly.

d. Scheduling Feasibility

- i. Our time table is reasonable, and allows us time to adjust if a problem occurs.

6. Physical Design and Integration

a.

7. Construction and Testing

- a. One way to test the new system is to see how long it takes a transaction to be completed

8. Installation and Delivery