Software Design for Affordable Quality Construction

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ABSTRACT

IT is an integral part of CRM to meet customers need. In this work, I designed UML use cases and scenarios for the Affordable Quality Construction.

KEYWORDS

UML, CRM, Affordable quality construction

List of UML use cases

In this section we will present some uses cases for Affordable Quality Construction system. UML would be a base for all our implementation. There are some tools and applications for data analysis like RapidMiner[7] which we will not discuss in this report. System design is the base for success of the software especially when it comes to the Large Scale system [3,4,8]

List of UML Use case

There is one trivial use case for the customer when he/she wants to create an account The Scenario is as follows:

1. Customer logs to the system by going to the website
2. Create user and password

3. provide email address
4. confirm information in the email link

This use case basically is the entry to the system when customer wants to submit an order. His or her history will be checked by operator. The scenario as follows:

5. Customer logs to the system by going to the website
6. Create user and password
7. provide email address
8. confirm information in the email link

Request for the contractor quality of work

Customer may ask for the quality evidence of the contractor. So the system should check the history of previous works and provide the information including address to view it. Scenario is as follows:

1. Customer asks for quality evidence
2. system check the contractor history
3. provide information including address to the customer

Estimate the price

Customer call the contractor and asks for the estimate cost. The contractor goes to the place and visit then offers cost estimate. Scenario is as follows:

- Customer submits order
- contractor estimates the cost
- Cost-Estimate use case needs the visit use case to offer the estimation

Workflow of task

Contractor submits the task to the subordinates and here timing is very important the scenario is as follows:

1. Contractor submits a task
2. Inventory should be checked to find necessary materials
3. check permission from subordinate to see if they have access or not

More Storyboards

Following example shows an initial flow of events and manage incoming requests from customers:

- Customer submits an order and the system displays the message
- The order management subsystem may categorize incoming requests based on the current customer, new customers, etc.
- Read the order
- categorize or tag the orders based on the importance of them
- send confirmation to the customer
- terminate use case once forward to the manager

Another storyboard is related to the compliance as follows:

- customer asks for permits before construction begins
- Pay State and Federal Fees
- Follow EPA regulations
- Insurance requirements should be met

Following scenario is about material concerns and we can have a use case diagram for this.

- Contractor submits order to buy materials
- purchase materials and deliver to the workers
- check quality of materials
- pay for the materials

3. CONCLUSIONS

IT is an integral part of CRM to meet customers need. In this assignment, I designed UML use cases and scenarios for the Affordable Quality Construction.

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