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Effective UML models by using database system

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Abstract

This study suggested ways to control UML diagram and to make design of database and to retrieve diagram information by giving questions. The study classified elements of the diagram. For instance, class diagram was made of classes, and class was done of class name and attribute operator. The elements were transformed to be database table having basic key and foreign key information. The ways suggested had advantages of users' sharing of model information and reuse of the model. This study investigated cost saving, time saving and UML model construction by database. We had designed integrated and relation database that could save and manage UML diagram, and suggested retrieval. For instance, we classified class diagram into elements to make tables and kept relation of each element by using not only basic key of relation database but also foreign key information. We made database of modeling depending upon methods to give users convenience.

Keywords: UML Model, database, system.

1. Introduction

Not only modeling but also simulation can make design of models to put into practice and to analyze performance results and to make circulation process. UML and others are used to make design of

simulation models.

Many development tools can integrate and control UML diagrams. In the past, development tools saved UML model information by using file systems. File saving system can save and retrieve design information to be difficult to join by many developers.

This study suggested ways to control UML diagram and to make design of database and to retrieve diagram information by giving questions. The study classified elements of the diagram. For instance, class diagram was made of classes, and class was done of class name and attribute operator. The elements were transformed to be database table having basic key and foreign key information. The ways suggested had advantages of users' sharing of model information and reuse of the model.

2. Contents

UML with many diagrams needs schema that can control all of the diagrams. Users have shown schema to select diagram easily. The schema can lessen models to be database based system.

3. Simulation

The study classified diagrams according to owner primary key. Users are allowed to select UML diagram by existing labels of NAME, INFO and DATA attributes.

Retrieval of diagram identifier and owner, etc satisfying users' input condition shall be done to retrieve optional diagram. When an owner is decided, elements of each diagram can be retrieved by using relations of the table. In the case of class diagram, owner of diagram table shall be decided to find out OWNER_SUB, identifier of all of the classes, by using owner of class table. Attributes and operation of each class can be detected by using SUB.

4. Conclusion

This study investigated cost saving, time saving and UML model construction by database. We had designed integrated and relation database that could save and manage UML diagram, and suggested retrieval. For instance, we classified class diagram into elements to make tables and kept relation of each element by using not only basic key of relation database but also foreign key information. We made database of modeling depending upon methods to give users convenience.

In this study, UML system of database was used to have good bonding and expansion. UML system is likely to save time and cost when developing software.

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