13 November, 2014



Team Number: 4 Consultation Day/Hour: Tuesday, 1pm

Team Name: Team 4

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CS3202 Software Engineering Project

Final Report

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# Project Story

//describe project story, experience

# Summary of Main Achievements

## Basic SPA Functionality

//describe if implemented everything from iter 1-3

## Highlights of System

-Polymorphism of data structure for PKB MapTable & ListTable

-Next\* Implementation (not tb definition representation)

--implementation of Query Representator

-QE?

## Extension for Bonus Points

//talk abt siblings, contains [do we have time for Next/Affects Bip]

# Project Plans

//describe organization of work actual schedule

## Project Schedule

## Organization of Meetings

//talk abt

# UML Diagrams

\*SAME AS BEFORE\*

//reuse 2 diags as before

//make 2 more for testing if possible

//how did they add value to the project

//allow us to analyze and discuss the problems. Focus on what to implement, allowing us to emphasize on the what of the implementation (section 10.1)

# Design Decisions

////talk abt separation of concerns and virtues of simplicity and standardization

//system decomposition with information hiding {section 10.1}

//show software architecture (emphasis on the differences in the QP)

## PKB Data Structure Representation

- discuss the design problem

-identify goals to be met by relevant design solutions

-discuss alternatives, previous implementations

-analyze strengths and weaknesses [include big o notation analysis]

-discuss implemented design based on the weakness of the previous design decisions

-analyze using big o notation

-give example for insertion, searching and getting for one relationship

## PKB API

## SPA Relationships

### AST

### Modifies/Uses [for procedure calls]

### Parent/Follows

### Calls

### Next/Next Star

### Affects/Affects Star

### Contains/Contains Star

### Siblings

## Design Patterns

# Coding Standards & Experiences

\*SAME AS BEFORE\*

# Query Processing

## Query Validation

Table-driven approach to query validation??

## Query Evaluation

### Data Representation (QR)

### Basic Query Evaluation

#### Manage the temporary results

### Optimization

### Design Decisions

# Testing

## Testing Experience

## Examples of Test Cases

### Unit Testing

#### PKB

#### PQL

### Integration Testing

#### Parser, PKB & Design Extractor

### Validation Testing

# Discussion