# Database Management System

Create project

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### **Function**



Function: Create a MFC SDI application as "Database management system" application by Microsoft Visual Studio 2010 development tool, and create program layer structure by 3 layer structure in system structure.

1. Solution name: RKDBMS

2. Project name: RKDBMS

3. Application type: MFC single document(MFC SDI)

# Design



This project is a Windows interface application. We can create a Win32 application, can also create an MFC application by using the mature framework (MFC).

Using VS2010 development tool, the project is to create an MFC SDI application as the project works by MFC SDI application framework. In "Solution Explorer" of VS2010 development tool, based on the 3 layer structure in the system structure, design program layer structure and logic layered to the program.

#### 1. Selection of application type

#### (1) Win32 application

Win32 application is mainly to make programming by Windows API function.

Need to manually write window registration and recall function.

#### (2) MFC application

MFC packaging Windows API by C++ class form, and contains an application framework to reduce workload of application developers. MFC library supports 3 different applications: Dialog box (Dialog), Single document (MFC SDI) and Multiple document (MFC MDI)

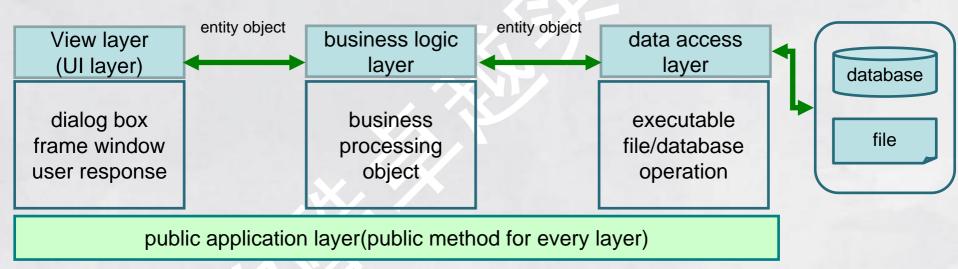
The application type in this project is MFC SDI.

# Design

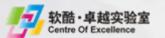


#### 2. Program structure design

Based on the logic responsibility, the program software structure can be divided into 3 layers: view layer, business logic layer and data access layer. Data in each layer is transferred by "entity class" (data object). Besides, public class that irrelative with business may be used in layers in the program as the "Tool class."



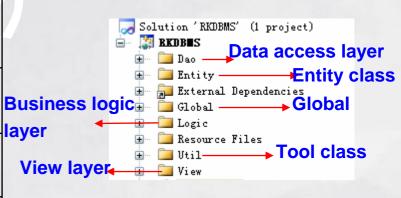
# Design



#### 3. Layer to program by VS2010

In the object-oriented programming, we can make layer structure division by class. But if classes are too much in a layer, the program structure will not be obviously divided. Thus we make logic layer to program by VS2010 solution resource browser (Solution Explorer) through Filter.

Layer	Filter	Class
view layer	View	frame class-CMainFrame view class-CRKDBMSView dialog class
business logic layer	Logic	Document class-CRKDBMSDoc business logic process class
data access layer	Dao	the class of writing and reading operation on data file
	Entity	entity class
	Util	tool class
	Global	global defined file application classCRKDBMSApp



# **Implementation**



Create a MDF SDI application by using Microsoft Visual Studio 2010 development project, the detailed implementation steps are as follows:

Step 1: create solution

Step 2: create MFC SDI application

Step 3: compile and run program

Step 4: create program layer structure



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# OThanks

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