

LKS SMK

Tingkat Provinsi Bali



KISI-KISI SOAL BIDANG LOMBA

IT SOFTWARE SOLUTIONS FOR BUSINESS



1. TECHNICAL/ COMPETITION DESCRIPTION (TD)

This competition is designed to test specialist users of software applications. The skill involves the ability to:

- Analyze system based on database modeling tools and techniques with Entity Relationship Diagram (ERD)
- Use investigation and learning skills to obtain user requirements (e.g., document search and analysis)
- Write a method given the desired behavior (inputs, outputs, pre-conditions and post-conditions).
- Use latest available integrated development environments and identify the strengths and weaknesses of each in software development
- Search for, evaluate and integrate appropriate libraries and frameworks into the software being developed
- Construct database structure and data dictionary
- Use the functionality of the .NET environment to develop the software solution according to requirements specifications
- Use the full potential of SQL Server to store and manage the data for the system to be developed
- Demonstrating the software solution developed to solve sample of business case given.

2. ANALYSIS TECHNICAL DESCRIPTION

Skills summary of technical/ competition description following:

1. Work Organization and Management
2. Communication and Interpersonal Skill
3. Problem Solving, Innovation and Creativity
4. Analyze and Designing Software Solution
5. Developing Software Solution
6. Testing Software Solution

Generally, those skills are divided into four major module of skill test:

No.	Module
1	Database Creation and Main Form Development
2	Master Form Development
3	Schedule Form Development
4	View Schedule and Score Development

3. COMPETITION SCENARIO

3.1 Opening Day and Competition Day 1

No.	Schedule	Activity
1	09.00	Opening Ceremony
2	13.00 – 13.30	Technical Briefing
3	13.30 – 14.00	Familiarization, Hardware and Software Checking
4	14.00 – 15.30	Module 1: Database Creation and Main Form Development
5	15.30 – 17.00	Marking

3.2 Competition Day 2

No.	Schedule	Activity
1	07.30 – 08.00	Preparation
2	08.00 – 09.30	Module 2: Master Form Development
3	09.30 – 11.00	Marking
4	11.00 – 11.30	Break
5	11.30 – 13.00	Module 3: Schedule Form Development
6	13.00 – 13.30	Break
7	13.30 – 15.00	Marking
8	15.00 – 16.30	Module 4: View Schedule and Score Development
9	16.30 – 18.00	Marking
10	18.00 – 19.00	Break and Competition Summary

3.3 Closing Ceremony and Winner Announcement

4. MARKING GUIDELINE

- Marking will be done after each module finished.
- Competitor that is capable to finish current module before submission time are permitted to start the next module.
- Competitors are not allowed to revise the submitted module after the submission time.
- Competitors are not allowed to bring any electronic and printed material to competition area.
- Jury is checking based on given check list. One checklist may contain more than one marking components. Missing or incorrect result on one of those components will be assumed as wrong answer.

- Marking Percentage :
 - Database Creation and Main Form Development : 18%
 - Master Form Development : 22%
 - Schedule Form Development : 30%
 - View Schedule and Score Development : 30%

5. FACILITIES

5.1 Hardware

The following machines and equipment will be made available to each competitor:

- Computer for each competitor:
 - Intel Core i3 4150, 3.50 Ghz
 - Hard disk 500GB
 - RAM 4 GB DDR3
 - Monitor LCD 18.5"
 - Keyboard, Mouse USB
- Document holder and stationary

5.2 Software

The following softwares will available for each computer system:

- Windows 10 64-bit operating system
- Microsoft Visual Studio Community Edition 2015
- SQL Server Express Management Studio 2014
- SQL Server 2014
- PDF Reader
- Microsoft Office 2013
- .(dot) net framework 4.5

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SOAL BIDANG LOMBA IT SOFTWARE SOLUTIONS FOR BUSINESS

Denpasar, 8-10 Maret 2018



PROJECT OVERVIEW

In this Test Project, you are required to develop an information system following the requirement given on the Test Project. In general, there will be 4 project resources given to you, which is:

1. ERD and Data Dictionary for Test Project

This will be used to guide you to create the database files. Ensure that all entities created on the database are related with the given ERD, following the relationship and also the criteria in Data Dictionary for each entity!

2. Navigation Diagram for the Application

Use the Navigation Diagram to develop the form interaction inside the application. You are free to add new interaction between forms, without neglecting the defined interaction in this diagram.

3. Example Design (Wireframe) of desired Information System

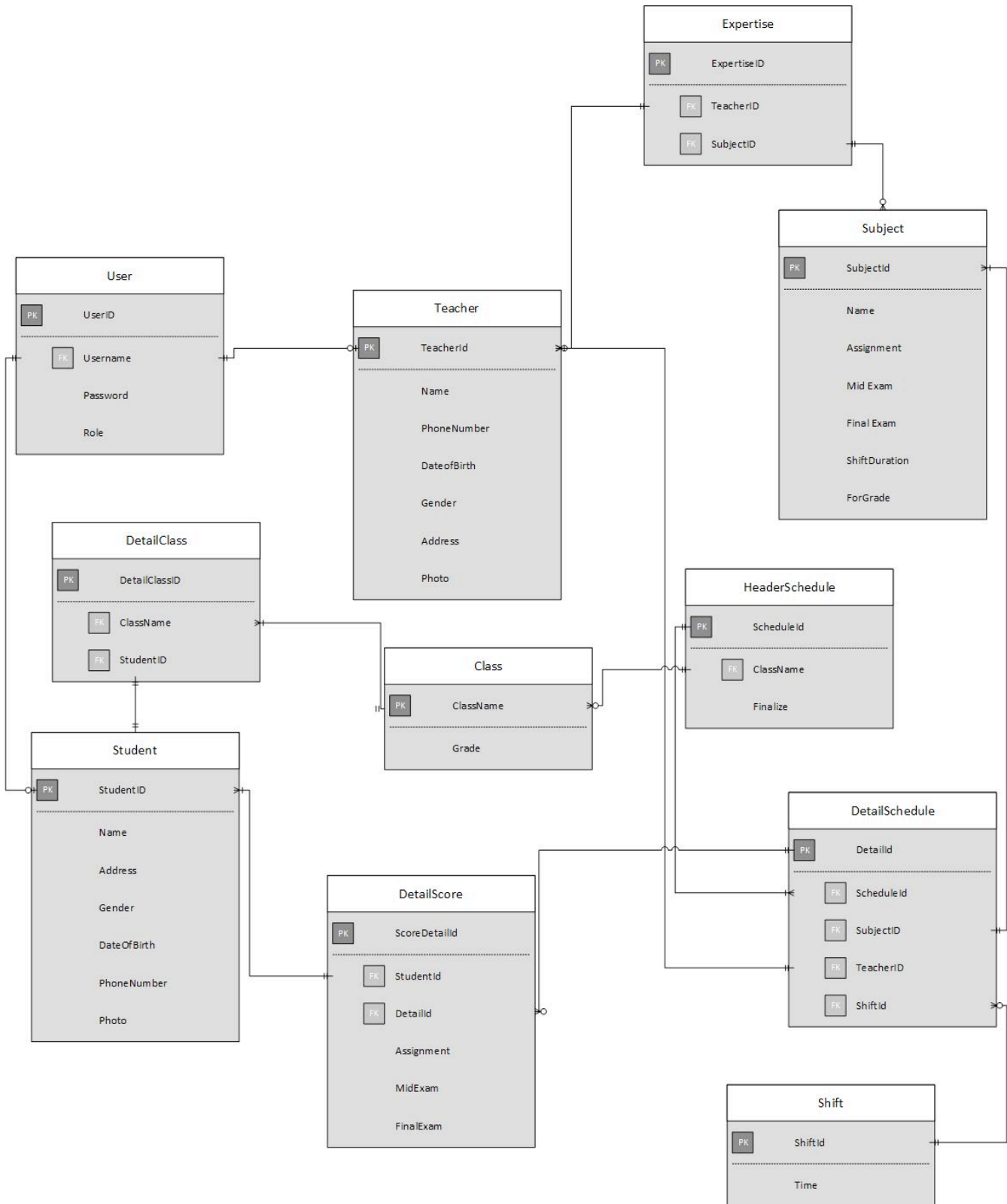
This file is used to give you design guidelines of all required forms. Please note that your form designs are not limited to these examples!

4. Data files (*if any*)

The data files will be used to support you test and develop the information system on each module. Please use this data files in the development, you are allowed to use another resources outside the given data files only if instructed in the module.

SMK NUSANTARA INFORMATION SYSTEM

ENTITY RELATIONSHIP DIAGRAM



SMK NUSANTARA INFORMATION SYSTEM

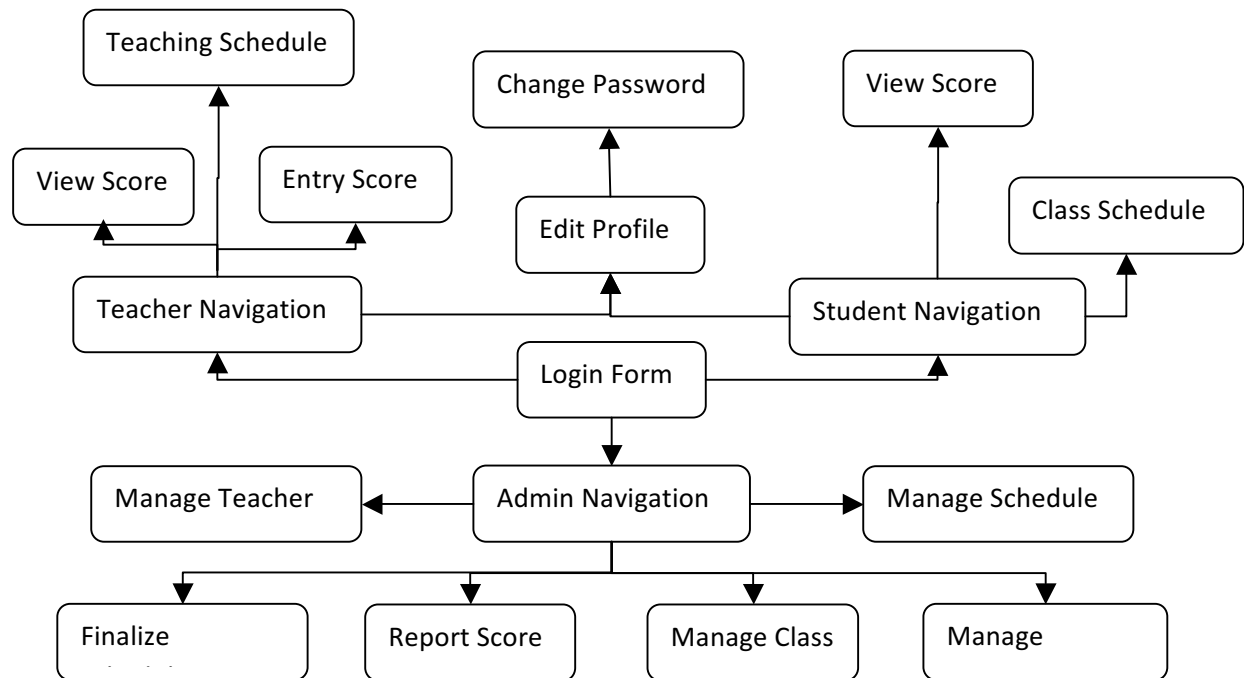
DATA DICTIONARY

Tabel	KEY	Kolom	Type Data	Required?	Notes
Teacher	PK	TeacherID	VARCHAR(8)	Y	
		Name	VARCHAR(50)	Y	
		PhoneNumber	VARCHAR(12)	Y	
		DateofBirth	Date	Y	
		Gender	VARCHAR(7)	Y	
		Address	VARCHAR(100)	Y	
		Photo	VARCHAR(100)	N	
Subject	PK	SubjectID	CHAR(5)	Y	
		Name	VARCHAR(50)	Y	
		Assignment	INTEGER	Y	
		Mid Exam	INTEGER	Y	
		Final Exam	INTEGER	Y	
		ShiftDuration	INTEGER	Y	
		Grade	INTEGER	Y	
Class	PK	ClassName	VARCHAR(5)	Y	
		Grade	INTEGER	Y	
Student	PK	StudentID	VARCHAR(8)	Y	
		Name	VARCHAR(50)	Y	
		Address	VARCHAR(150)	Y	
		Gender	VARCHAR(7)	Y	
		DateofBirth	DATE	Y	
		PhoneNumber	VARCHAR(12)	Y	
		Photo	VARCHAR(100)	N	
User	PK	Userid	INTEGER	Y	Auto Increment
	FK	Username	VARCHAR(8)	Y	
		Password	VARCHAR(10)	Y	
		Role	VARCHAR(8)	Y	
HeaderSchedule	PK	ScheduleID	INTEGER	Y	Auto Increment
	FK	ClassName	VARCHAR(5)	Y	
	FK	Finalize	INTEGER	Y	
DetailSchedule	PK, FK	DetailID	INTEGER	Y	Auto Increment
	FK	ScheduleID	INTEGER	Y	
	FK	SubjectId	CHAR(5)	Y	
	FK	TeacherId	VARCHAR(8)	Y	
	FK	ShiftId	INTEGER	Y	
		Day	CHAR(10)	Y	
Shift	PK	ShiftId	INTEGER	Y	
		Time	CHAR(13)	Y	
DetailScore	PK	ScoreDetailId	INTEGER	Y	Auto

					Increment
	FK	DetailId	INTEGER	Y	
	FK	StudentId	VARCHAR(8)	Y	
		Assignment	INTEGER	N	
		MidExam	INTEGER	N	
		FinalExam	INTEGER	N	
DetailClass	PK	DetailClassId	INTEGER	Y	Auto Increment
	FK	ClassName	VARCHAR(5)	Y	
	FK	StudentId	VARCHAR(8)	Y	
Expertise	PK	ExpertiseId	INTEGER	Y	Auto Increment
	FK	TeacherId	VARCHAR(8)	Y	
	FK	SubjectId	CHAR(5)	Y	

SMK NUSANTARA INFORMATION SYSTEM

NAVIGATION DIAGRAM



SMK NUSANTARA INFORMATION SYSTEM

WIREFRAME

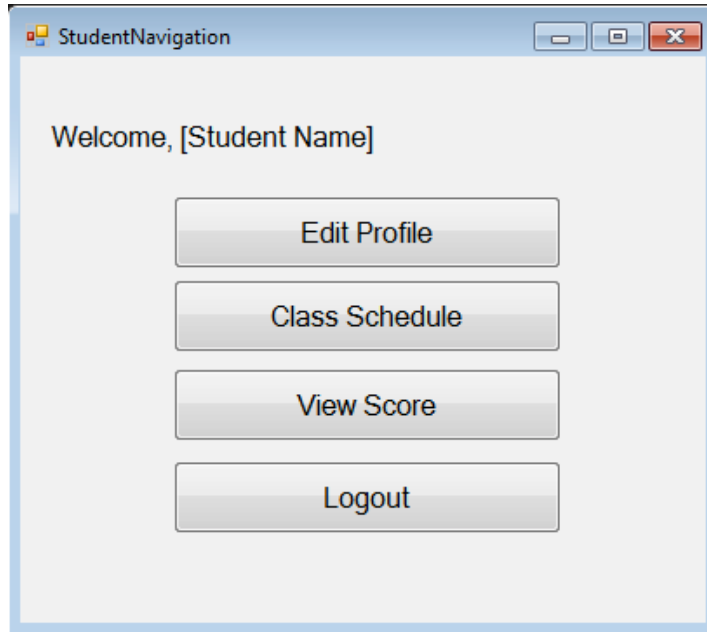
01 Login Form

The wireframe shows a window titled "FrmLogin" with a standard Windows-style title bar (minimize, maximize, close buttons). The main content area has a light gray background. At the top center, the text "SMK Nusantara" is displayed. Below this, there are two labels: "username" and "password", each followed by a white rectangular input field. At the bottom center, there is a button labeled "Login".

02 Teacher Navigation Form

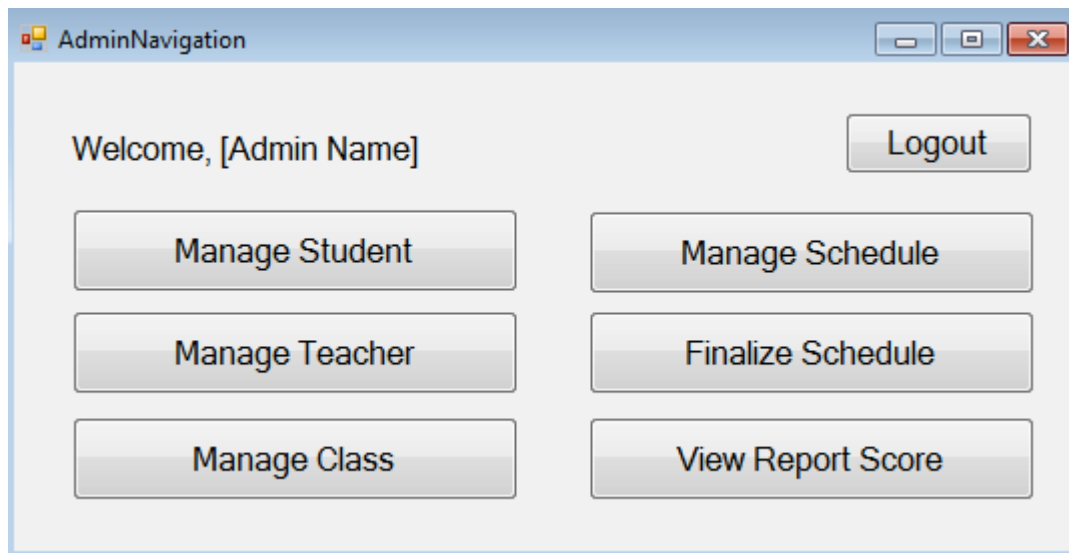
The wireframe shows a window titled "TeacherNavigation" with a standard Windows-style title bar (minimize, maximize, close buttons). The main content area has a light gray background. At the top, the text "Welcome, [Teacher Name]" is displayed. Below this, there are four buttons stacked vertically: "Edit Profile", "Teaching Schedule", "Input Score", and "Logout".

03 Student Navigation Form



The screenshot shows a window titled "StudentNavigation" with a standard Windows-style title bar (minimize, maximize, close buttons). The main content area has a light gray background. At the top, it says "Welcome, [Student Name]". Below this, there are four rectangular buttons with a light gray gradient and a thin black border, arranged vertically in the center. The buttons are labeled "Edit Profile", "Class Schedule", "View Score", and "Logout".

04 Admin Navigation Form



The screenshot shows a window titled "AdminNavigation" with a standard Windows-style title bar. The main content area has a light gray background. At the top left, it says "Welcome, [Admin Name]". At the top right, there is a "Logout" button. Below the welcome message, there are six rectangular buttons with a light gray gradient and a thin black border, arranged in two columns. The left column contains "Manage Student", "Manage Teacher", and "Manage Class". The right column contains "Manage Schedule", "Finalize Schedule", and "View Report Score".

05 Manage Student Form

The screenshot shows a window titled "FrmStudent" with a "Form Student" header. Below the header is a search bar. A table with 7 columns (StudentID, Name, Address, Gender, Date of Birth, Phone Number) and 1 row (marked with an asterisk) is displayed. Below the table is a large gray rectangular area. At the bottom, there are input fields for Student ID, Student Name, Address, Gender (radio buttons for Male and Female), Date Of Birth (calendar picker showing 14 Mei 2017), and Phone Number. At the very bottom are buttons for insert, update, delete, Save, and Cancel.

	StudentID	Name	Address	Gender	Date of Birth	Phone Number
*						

Student ID:

Student Name:

Address:

Gender: ☐ Male ☐ Female

Date Of Birth: 14 Mei 2017

Phone Number:

insert update delete

Save Cancel

06 Manage Teacher Form

The screenshot shows a window titled "FrmTeacher" with a "Form Teacher" header. Below the header is a search bar. A table with 7 columns (TeacherID, Name, Address, Gender, Date of Birth, Phone Number) and 1 row (marked with double asterisks) is displayed. Below the table is a large gray rectangular area. At the bottom, there are input fields for Teacher ID, Teacher Name, Address, Gender (radio buttons for Male and Female), Date Of Birth (calendar picker showing 13 Mei 2017), and Phone Number. At the very bottom are buttons for insert, update, delete, Save, and Cancel.

	TeacherID	Name	Address	Gender	Date of Birth	Phone Number
**						

Teacher ID:

Teacher Name:

Address:

Gender: ☐ Male ☐ Female

Date Of Birth: 13 Mei 2017

Phone Number:

insert update delete

Save Cancel

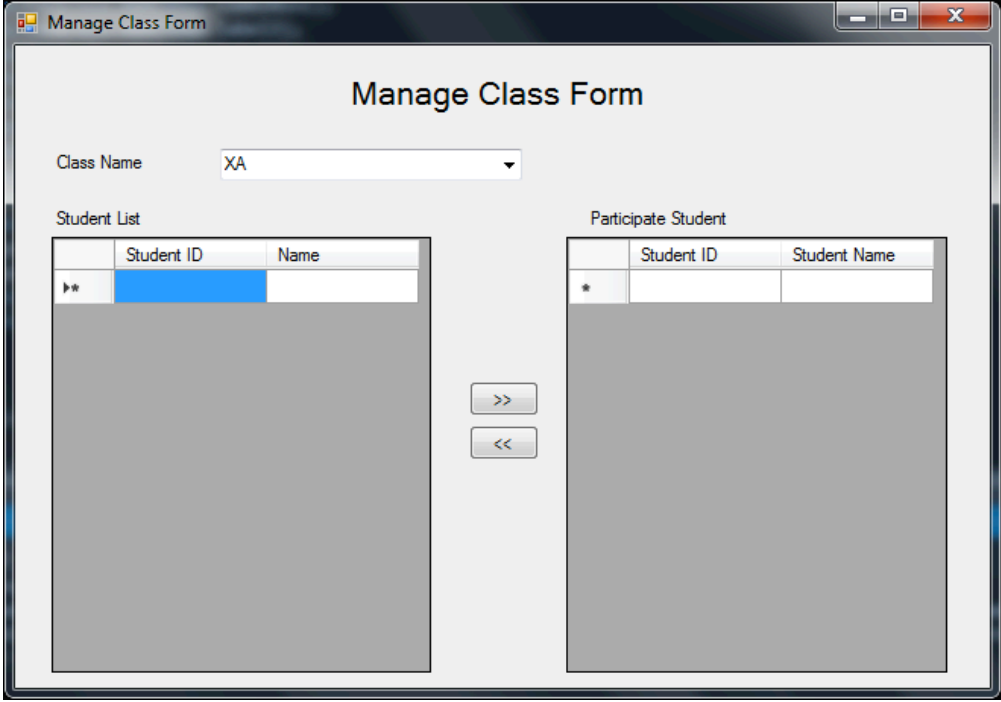
07 Edit Profile Form

The screenshot shows a window titled "FrmEditProfile" with a standard Windows-style title bar (minimize, maximize, close buttons). The main content area is titled "Form Profile". At the top center is a large square placeholder for a profile picture, containing a white silhouette of a person's head and shoulders on a gray background. To the right of the silhouette is a small icon of a pencil inside a square. Below the picture placeholder is a button labeled "Change Password". Underneath this button are four input fields, each preceded by a label: "ID", "Name", "Phone Number", and "Address". The "ID" field has a single character "|" inside. At the bottom of the form are two buttons: "Save" and "Cancel".

08 Change Password Form

The screenshot shows a window titled "FrmChangePassword" with a standard Windows-style title bar (minimize, maximize, close buttons). The main content area is titled "Change Password Form". It contains three input fields, each preceded by a label: "Old Password", "New Password", and "Confirm Password". At the bottom of the form is a single button labeled "Save".

09 Manage Class Room



The "Manage Class Form" window features a title bar with standard window controls. The main area is titled "Manage Class Form". At the top, there is a "Class Name" dropdown menu currently set to "XA". Below this, the window is divided into two columns. The left column, titled "Student List", contains a table with headers "Student ID" and "Name". The first row is highlighted in blue and contains a right-pointing arrow and an asterisk. The right column, titled "Participate Student", contains a table with headers "Student ID" and "Student Name". The first row contains an asterisk. Between the two tables are two buttons: ">>" and "<<".

Class Name: XA

Student List

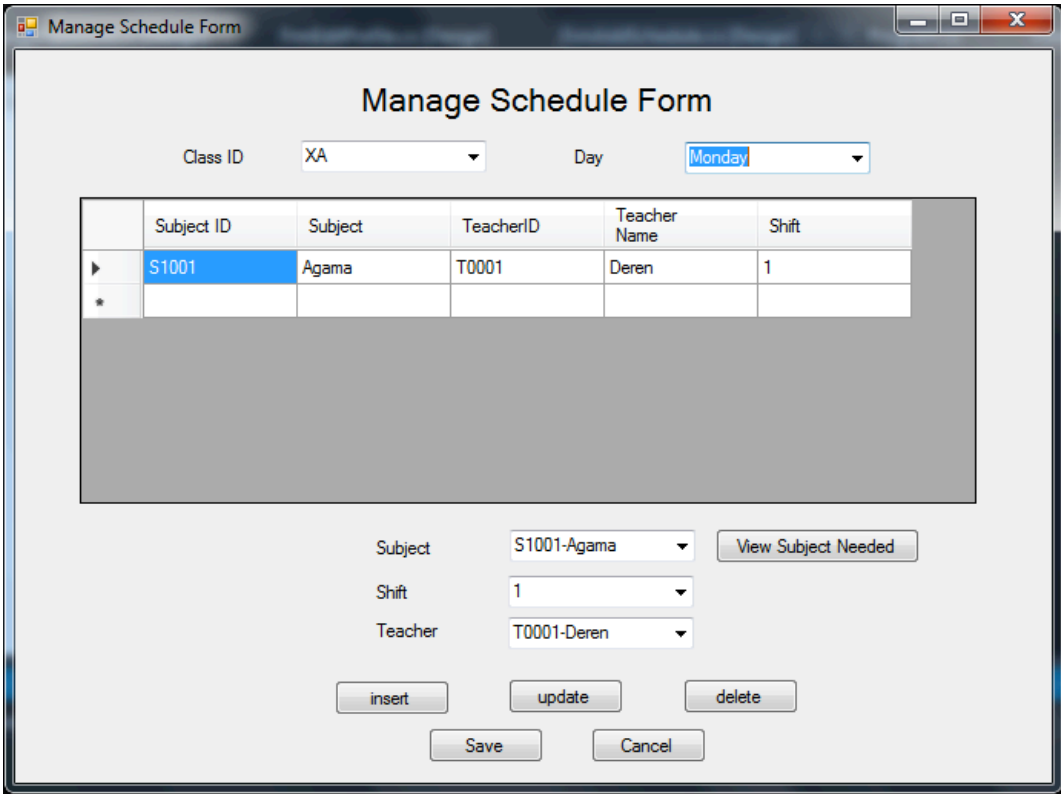
Student ID	Name
▶*	

Participate Student

Student ID	Student Name
*	

>> <<

10 Manage Schedule Form



The "Manage Schedule Form" window has a title bar with standard window controls. The main area is titled "Manage Schedule Form". At the top, there are two dropdown menus: "Class ID" set to "XA" and "Day" set to "Monday". Below these is a table with headers "Subject ID", "Subject", "TeacherID", "Teacher Name", and "Shift". The first row is highlighted in blue and contains "S1001", "Agama", "T0001", "Deren", and "1". The second row contains an asterisk. Below the table, there are three dropdown menus: "Subject" set to "S1001-Agama", "Shift" set to "1", and "Teacher" set to "T0001-Deren". To the right of the "Subject" dropdown is a button labeled "View Subject Needed". At the bottom, there are five buttons: "insert", "update", "delete", "Save", and "Cancel".

Class ID: XA Day: Monday

Subject ID	Subject	TeacherID	Teacher Name	Shift
S1001	Agama	T0001	Deren	1
*				

Subject: S1001-Agama Shift: 1 Teacher: T0001-Deren View Subject Needed

insert update delete Save Cancel

11 Finalize Schedule Form

The screenshot shows a window titled "FrmFinalize" with a title bar containing standard Windows controls. The main area is titled "Finalize Schedule Form". Below the title, there is a "Class ID" label followed by a dropdown menu showing "XA" and a "Finalize" button. Below this is a table with the following columns: Subject ID, Subject, TeacherID, Teacher Name, Day, and Shift. The first row of the table is highlighted with a blue background and contains an asterisk (*) in the first column. The rest of the table is empty.

	Subject ID	Subject	TeacherID	Teacher Name	Day	Shift
*						

12 Teaching Schedule Form

The screenshot shows a window titled "FrmViewScheduleTeacher" with a title bar containing standard Windows controls. The main area is titled "Teaching Schedule". Below the title is a table with the following columns: Subject ID, Subject, Class Name, Day, and Time. The first row of the table is highlighted with a blue background and contains an asterisk (*) in the first column. Below this table is a section titled "Student List" which contains a table with the following columns: Student ID, Student Name, and Gender. The first row of the Student List table is highlighted with a blue background and contains an asterisk (*) in the first column.

	Subject ID	Subject	Class Name	Day	Time
*	S1001	Matematika	SMK 1A	Monday	07:00 - 07:45
	S1001	Matematika	SMK 1B	Monday	08:30 - 09:15
	S2001	Matematika	SMK 2A	Monday	09:30 - 10:15
	S3001	Matematika	SMK 3A	Monday	11:00 - 11:45

	Student ID	Student Name	Gender
*	201600001	Mami	Female
	201600002	Sorja Tabun	Female
	201600003	Bryan Sentosa	Male
	201600004	Honda Katsuki	Male
	201600005	Merly	Female
	201600006	Brandon Wijaya	Male
	201600007	Marco	Male
	201600008	Elsa	Female
	201600009	Windy	Female

15 Entry Score Form

FrmEntryScore

Entry Score

[Student ID] - [Nama]

Assignment

Mid Exam

Final Exam

Save

16 View Score Form

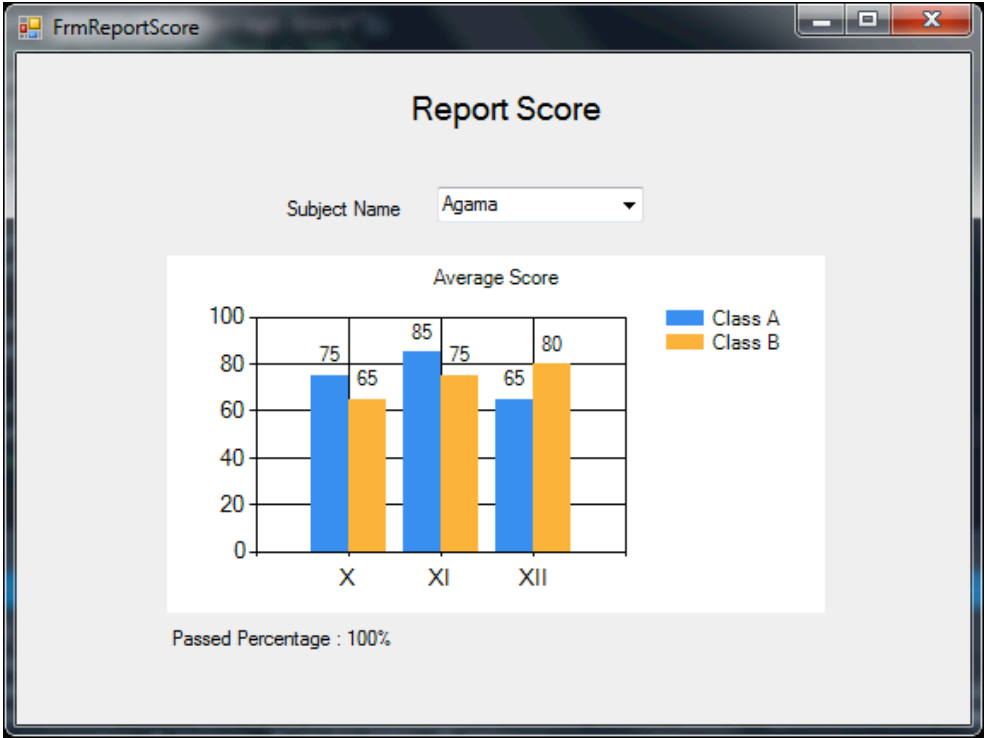
FrmViewScore

View Score

Assignment : 20%, Mid Exam : 30%, Final Exam : 50%

	Subject ID	Subject Name	Assignment	MidExam	FinalExam	Final
»*						

17 View Report Score Form



THE DEVELOPMENT OF SMK NUSANTARA INFORMATION SYSTEM

SMK NUSANTARA is one of Indonesia famous vocational school located in Solo.. As the school growth, the Headmaster thinks it is the time to use Information System to support their business process for scheduling process. After hiring famous consultant to analyze and design the system, it is the time to develop the system.

Based on the system design given to you, you're required to develop Information system to support the business process of scheduling for SMK Nusantara. Ensure your developed solutions can accommodate SMK Nusantara business process properly, following the instruction on the project!

Module 1: Database Creation and Main Form Development

1. Create the Database

Create a database using your MS SQL Server on the local database server based on given ERD and Data Dictionary given on page 3-5 for table detail score and expertise.

2. Insert the Data

Insert the master data given to you on file “*data.xlsx*” to the related table on your newly created database.

3. Create Application

Create an application using your preferred platform (C# or Visual Basic.NET).

4. Create “01 Login Form”

Create the main menu of the application as outlined in “**01 Login Form**” in the wireframe.

- Ensure user that have account in database can login
- Ensure user will go to correct navigation form according to their role
- If button logout clicked, close all window and show login form

5. Create “02 Teacher Navigation Form”

Create the main menu of the application as outlined in “**02 Teacher Navigation Form**” in the wireframe.

- Ensure this form just can be accessed by Teacher

6. Create “03 Student Navigation Form”

Create the main menu of the application as outlined in “**03 Student Navigation Form**” in the wireframe.

- Ensure this form just can be accessed by Student

7. Create “04 Admin Navigation Form”

Create the main menu of the application as outlined in “**04 Admin Navigation Form**” in the wireframe.

- Ensure this form just can be accessed by Admin

8. Create “07 Edit Profile Form”

Create the main menu of the application as outlined in “**07 Edit Profile Form**” in the wireframe.

- Ensure the form display **correct data** according to the user login
- Ensure program can **preview image** from uploaded file
- Ensure program have filter proper image extension while **browsing a file** from computer (*.jpg,*.png).
- Generate picture name with timestamp (ddmmyyhhmmss) + original extension from uploaded file. Example: if user upload image with name pp1.png at **15 May 2017 12:10:15**, the file name become **150517121015.png**
- Ensure **Address** must be filled
- Ensure **name** have between **3 and 20 character**.
- Ensure **phone number** must be **11 – 12 Digit** and **start with 08**
- If button change password is clicked, show “**08 Change Password Form**”

- If button save is clicked, program will **save** all **data** and **upload** the **picture** to the system

Module 2: Master Form Development

1. Create “05 Manage Student Form”

Create the main menu of the application as outlined in “05 Manage Student Form” in the wireframe.

- At the first, **studentID**, **name**, **address**, **gender**, Date of Birth (dd/mm/yyyy), and **phone number** will be **disabled** and button **save** and **cancel** will be **invisible**.
- Ensure the form **display** all **Student data** which is stored inside the database
- The **Search Box** will allow the user to **search based on ID, name, address, phone** in **database** that contains words according to the **inputted words** and **display** it in **datagridview**.
- Ensure every time **user click** 1 row in **datagridview**, the **selected data** will be **displayed** in **all component** form.
- If user click **insert** or **update button** the program will :
 - **name, address, gender, Date of Birth**, and **phone number** will be **enabled**, button **save** and **cancel** will be **visible** and button **insert, update** and **delete** will be **invisible**
 - if user click **insert**, every **text** will be **empty** and **StudentId** will be auto **generated** with **format yyyy + xxxx** (yyyy for this year and xxxx for number.), example : 20170001
- Ensure **address** and **gender** must be **filled** before adding or updating the data.
- Ensure **name** have between **3 and 20 character**.

- Ensure **phone number** must be **11 – 12 Digit** and **start with 08**
- Ensure the **age** student must be between **15** and **21** years.
- If user click **Save** or **Cancel** button, the program will :
 - **name, address, gender, Date of Birth**, and **phone number** will be **disabled**, button **save** and **cancel** will be **invisible** and button **insert, update** and **delete** will be **visible**
 - if user click **save** button, the program will generate **default password** and save every data that user inputted into database.
- Format **default password** : first character in student name (upper case) + last character in student name (lower case) + yyyy (year of birth), example : Tony, 12 July 2001. Default password : Ty2001

2. Create “06 Manage Teacher Form”

Create the main menu of the application as outlined in “06 Manage Teacher Form” in the wireframe.

- At the first, **TeacherID, name, address, gender, Date of Birth (dd/mm/yyyy)** , and **phone number** will be **disabled** and button **save** and **cancel** will be **invisible**.
- Ensure the form **display** all **Teacher data which is** stored inside the database
- The **Search Box** will allow the user to **search based on ID, name, address, and phone** in **database** that contains words according to the **inputted words** and **display** it in **datagridview**.
- Ensure every time **user click** 1 row in **datagridview**, the **selected data** will be **displayed** in **all component** form.

- If user click **insert** or **update button** the program will :
 - **name, address, gender, Date of Birth, and phone number** will be **enabled**, button **save** and **cancel** will be **visible** and button **insert, update** and **delete** will be **invisible**
 - if user click **insert**, every **text** will be **empty** and **StudentId** will be auto **generated** with **format T + xxxx**, example : T0001
- Ensure **address** and **gender** must be **filled** before adding or updating the data.
- Ensure **name** have between **3 and 20 character**.
- Ensure **phone number** must be **11 – 12 Digit** and **start with 08**
- Ensure the **age** teacher must be between **25** and **50** years.
- If user click **Save** or **Cancel** button, the program will :
 - **name, address, gender, Date of Birth, and phone number** will be **disabled**, button **save** and **cancel** will be **invisible** and button **insert, update** and **delete** will be **visible**
 - if user click **save** button, the program will generate **default password** and save every data that user inputted into database.
- Format **default password** : first character in teacher name (upper case) + last character in teacher name (lower case) + yyyy (year of birth), example : Tony, 12 July 2001. Default password : Ty2001

3. Create “08 Change Password Form”

Create the main menu of the application as outlined in “08 Change Password Form” in the wireframe.

- Ensure user must input **correct old password**
- Ensure user input **new password** with **correct format** (contains upper case, lower case, number with total 6-9 character).
- Ensure **confirm password** must be same with **new password**.
- If **save button** is clicked, **save new password** into database and close the form

Module 3: Schedule Form Development

1. Create “09 Manage Class Form”

Create the main menu of the application as outlined in “**09 Manage Class Form**” in the wireframe.

- Ensure the form display all Students who have not got schedule yet.
- Ensure the form display all participate Students in selected class.
- Success add Student to selected class
- Ensure user can take out a student from selected class
- Save data to database

2. Create “10 Manage Schedule Form”

Create the main menu of the application as outlined in “**10 Manage Schedule Form**” in the wireframe.

- Ensure the form can **display** correct **Schedule** on datagridview according selected **class name** and **day**
- Ensure the form can display subject id and name in combobox with correct format (SubjectId-SubjectName)
- Display list of subject id and name in combobox according selected class ID (if user choose class XA, just display subjects for grade 1)
- Display teacher id and name in combobox with correct format (TeacherId-Name)
- Ensure only **available teachers** are **displayed** in Combobox according teacher **expertise** and **schedule**

- If button view subject needed is clicked, display subject needed in datagridview according to selected class name. (**SubjectId – SubjectName – Shift Needed – Shift Left**)
- Subject, Shift and Teacher display correct data according to selected datagridview
- If button insert or update is clicked, the program will enable **Subject, Shift** and **Teacher. Save** and **Cancel** button will be visible. **Insert, update** and **delete** button will be invisible
- Ensure in 1 class, the schedule cannot collide each other
- Ensure 1 **SubjectID** in 1 **Class**, just have 1 **TeacherID**
- If button cancel or save is clicked, the program will disable **Subject, Shift** and **Teacher. Save** and **Cancel** button will be invisible. **Insert, update** and **delete** button will be visible
- If button **save** is clicked, save all data to the database.
- If button **delete** is clicked, **ask confirmation** to user “Are you sure?” with option **yes** or **no**. If user choose **yes**, the program will delete the selected data.
- the schedule that already finalized, cannot be changed (disabled every button)

3. Create “11 Finalize Schedule Form”

Create the main menu of the application as outlined in “11 Finalize Schedule Form” in the wireframe.

- display all data schedule according selected class (SubjectID, Subject Name, Teacher ID, Teacher Name, Day, Shift)

- Ensure selected class have every subject needed according its class
- Ensure every subject have total shift as required on table subject.
- success Finalize data or display detail error if any, example: shift in Monday is less than 10, not Enough Shift for Agama Subject
- the schedule that already finalized, cannot be changed (disabled every button)

Module 4: View Schedule and Score Development

1. Create “12 Teaching Schedule and 13 View Schedule Form”

Create the main menu of the application as outlined in “**12 Teaching Schedule**” for Teacher **and** “**13 View Schedule Form**” for Student in the wireframe.

- Display right data according to user login (student schedule/ teacher schedule)
- Display right data according student filter.
- show data that already finalized
- teacher can see all student in his/her selected schedule

2. Create “14 Input Score Form”

Create the main menu of the application as outlined in “**14 Input Score Form**” in the wireframe.

- show correct list **subject** and **class name** in **combobox** based on teaching **schedule** (**change** every time **user change list subject** or **class name** in combobox)
- display **data** from **schedule** that already **finalized**
- show correct **assessment percentage** information according **selected subject**
- display **final score** using **right formula** according **subject table**
- display entry score form when “Entry Score” button is clicked based on selected **StudentId** and **name**

3. Create “15 Entry Score Form”

Create the main menu of the application as outlined in “**15 Entry Score Form**” in the wireframe.

- validate every score between 0 and 100
- display correct score according selected student
- if button save clicked, save the inputted score to the database to the right student and close the form

4. Create “**16 View Score Form**”

Create the main menu of the application as outlined in “**16 View Score Form**” for Student in the wireframe.

- student can view all score for his/her subject
- display final score using right formula according subject table

5. Create “**17 View Report Score Form**”

Create the main menu of the application as outlined in “**17 View Report Score Form**” in the wireframe.

- Admin can view report average score for each class by selected subject
- Display the graphic with correct format
- Admin can view passing rate for each grade with formula : **total student who have Final score below 60 / total student who participate in that subject**