

2017 International Skills Competition of China

IT Software Solutions for Business

Test Project

Session 3

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Contents

Session 3 of this Test Project consists of the following documentation/files:

1.TP09_S3_actual.pdf(Session 3 instructions)

Introduction

In this session, you will be developing the function “NBA Management System” based on the previous work you have done and the standard database “NBA” provided. Before starting the work of this session, you need at first finish “Main Screen” form, and make sure that all links are working correctly.

Instructions to the Competitor

You have 2.5 hours for this session.

Please use English all over your development except for particular specification. E.g. texts of forms, feedback or prompt message, comments etc. All deliverables are in English.

Please save your deliverables to the folder “Session3” under the 2nd drive directory in your computer.

You need to refer to “wireframe” for the form layouts and button links in the development of this session.

By the end of this session, you will need to have the following deliverables ready to submit so that the system will be finished on time.

Make sure that you follow the provided style guide throughout all parts of the system.

Make sure that you provide appropriate validation and error messages throughout all parts of the system.

Make sure that all relevant buttons/links are working at the end of the session.

Make sure that you use appropriate naming conventions for all parts of the system as needed.

Make sure that you do not modify the database structure during your development. When submitting deliverables in the end, there is no need to submit the database, because the assessment of the program will be conducted based on the standard database.

In the end, you need to make the folder which stores the deliverables of that session into a compressed file and submit the compressed file “Session3.rar”.



DELIVERABLES (SESSION 3)

3.1 CREATE “ADMIN LOGIN”

CREATE “ADMIN LOGIN”

Create the form as outlined in “Admin Login” of the “wireframe.ppsx”. This form allows an administrator to login to the system. Staff number and Password need to be entered by the administrator and validated against the database before he/she can successfully login. If the login fails, an appropriate message should be displayed.

There are 2 types of administrators, who are respectively:

- Event Administrator
- Technical Administrator

Redirect to related main forms according to their roles after logged in successfully.

- Event Administrator: Event Administrator Menu
- Technical Administrator: Technical Administrator Menu

By clicking “Remember me”, staff number and password shall be loaded automatically next time the application is started. There should be a “Logout” button on the top-right of the form where the administrator logs in successfully. Redirect to the login form by clicking this button.

3.2 CREATE “EVENT ADMINISTRATOR MENU”

CREATE “EVNET ADMINISTRATOR MENU”

Create the form as outlined in “Event Administrator Menu” of the “wireframe.ppsx”. This form includes 4 buttons:

- Manage Seasons
- Manage Matchups
- Manage Teams
- Manage Players

You will be developing this system gradually, and some functions will be added step by step in the subsequent development.

3.3 CREATE “TECHNICAL ADMINISTRATOR MENU”

CREATE “TECHNICAL ADMINISTRATOR MENU”

Create the form as outlined in “Technical Administrator Menu” of the “wireframe.ppsx”. This form includes 2 buttons:

- Manage Executions



- Team Report

You will be developing this system gradually, and some functions will be added step by step in the subsequent development.

3.4 CREATE “MANAGE SEASONS”

CREATE “MANAGE SEASONS”

Create the form as outlined in “Manage Seasons” of the “wireframe.ppsx”. This form allows an administrator to manage the season.

The administrator can filter information by season and matchup type.

Display the season information of the database in the combo box of Season by time in descending order.

The combo box of Matchup Type includes:

- ALL
- Preseason
- Regular Season
- Post Season

Load the season information in the data grid on the left, including:

- Season
- Matchup Type
- Number of Matchup

When a row of records is selected in the data grid on the left, load in the data grid on the right the information of all the matches of the season according to the start time of matches in ascending order, including:

- Date
- Matchup: Names of the 2 Opposing Teams with the format: “Team Away @ Team Home”.
- Result: its format is “Scores of Team Away – Scores of Team Home”.
- Location

Redirect to this form by clicking “Manage Seasons” button in “Event Administrator Menu” form.

3.5 CREATE “MANAGE MATCHUPS”

CREATE “MANAGE MATCHUPS”

Create the form as outlined in “Manage Matchups” of the “wireframe.ppsx”. This form allows an administrator to manage matches that include pre-season matches, regular matches and post-season matches.



The administrator can filter information by Season and Match Date.

Display the season information of the database in the combo box of Season by time in descending order.

When the checkbox before Match Date is checked, the status of Match Date box is enabled and only the matches held in the selected date will be shown in the data grid; When the checkbox is not selected, the status of Match Date box is disabled and the match date will not be involved in the search of data.

In the tab of Pre-Season Game, display the match information in the data grid by the start time of matches in ascending order, including:

- Date
- Team(Away)
- Team(Home)
- Time
- Location
- Finished

A match can be deleted by clicking “Delete” button in a row of the records. Previous matches or matches that have already started cannot be deleted and an appropriate message should be shown.

Note: The feature of “Update” button does not need developing. When “Update” button of a row of the records is clicked, a prompt message that tells that this feature has not been developed should be shown.

In the tab of Regular Game, display the match information in the data grid by start time of the matches in ascending order, including:

- Date
- Team(Away)
- Team(Home)
- Time
- Location
- Finished

A match can be deleted by clicking “Delete” button in a row of the records. Previous matches or matches that have already started cannot be deleted and an appropriate message should be shown.

Note: The feature of “Update” button does not need developing. When “Update” button of a row of the records is clicked, a prompt message that tells that this feature has not been developed should be shown.

By clicking “Export to Excel” button, export from the data grid the matchup information of regular games in Excel format.



Please refer to Deliverable 3.6 “Add a new matchup for regular season” for more information on “+Add a new matchup” button.

Redirect to this form by clicking “Manage Matchups” button in “Event Administrator Menu” form.

3.6 CREATE “ADD A NEW MATCHUP FOR REGULAR SEASON”

CREATE “ADD A NEW MATCHUP FOR REGULAR SEASON”

Create the form as outlined in “Add a new matchup for regular season” of the “wireframe.ppsx”. This form allows an event administrator to add matches for regular season. The information of the added matches includes:

- Season
- Matchup Type
- Date
- Time
- Location
- Team(Away)
- Team(Home)

Team Away and Team Home cannot be the same team. When selecting Team Home, the match venue will be regarded to be the venue of the team home by default. The administrator can also input a venue directly.

Save the added matches into the database by clicking “Submit” button.

Redirect to this form by clicking “+Add a new matchup” button in Tab “Regular Season” of “Manage Matchups” form.

3.7 CREATE “MANAGE TEAMS”

CREATE “MANAGE TEAMS”

Create the form as outlined in “Manage Teams” of the “wireframe.ppsx”. This form allows an event administrator to manage the teams of the current season.

The administrator can filter by Conference, Division and Team Name.

The contents in the combo box of Conference include “All” and both of the names of Conferences. The contents in the combo box of Division include “All” and all of the names of Divisions. Like search will be applied to the textbox of Team Name.

Team information is composed of the following:

- Team Logo
- Name



- Conference
- Division
- Coach
- TotalSalary: the sum of salaries of all the players of the team in the current season with the unit: \$ Million

Redirect to this form by clicking “Manage Teams” button in “Event Administrator Menu” form.

3.8 CREATE “MANAGE PLAYERS”

CREATE “MANAGE PLAYERS”

Create the form as outlined in “Manage Players” of the “wireframe.ppsx”. This form allows an event administrator to manage players.

The administrator can filter by Player Name, Position, and Nationality. Like search will be applied to the search of Player Names.

The combo box of Position includes: All and all of the positions in the tables; All means selecting all positions.

The combo box of Country includes: All and all of the country names; All means all of the countries.

The player information includes:

- Name
- Position
- JoinYear
- Height
- Weight
- DateOfBirth
- College
- Country

Redirect to this form by clicking “Manage Players” button in “Event Administrator Menu” form.

3.9 CREATE “TEAM REPORT”

CREATE “TEAM REPORT”

Create “Team Report” form as outlined in “Team Report” in the wireframe “wireframe.ppsx”.

This form allows a technical administrator to print the report of the teams in the current season.

The technical administrator can choose to view Average (data) or Total (data) to load the contents, and can filter by matchup types and sort by technical data.

The combo box of Matchup Type includes:



- Preseason
- Regular Season
- Post Season

The combo box of Rank by includes:

- Points
- Rebounds
- Assists
- Steals
- Blocks

The combo box of View by includes:

- Average
- Total

The contents of team in the report include:

- Rank
- Name
- Conference
- Division
- Points
- Rebounds
- Assists
- Steals
- Blocks
- Turnover
- Foul

If there appears the same technical data in an index of the teams, then calculate the ranking according to Table 1 below.

Table 1 The Rules of Ranking for the Same Technical Data

A Technical Data	Ranking
53	#1
53	#1
52	#2
50	#3



Display the contents of report by paging with 20 records for each page.

Redirect to this form by clicking “Team Report” button in “Technical Administrator Menu” form.

3.10 TESTING

TESTING

You need to test the application (TestCode) provided in the material. The requirements are as below:

According to the requirements of “testing-instruction.docx” in the material, use the appropriate method to design test cases to complete the unit test and integration test for the application. And create the report of the test cases based on the template (testing-template.docx) in the material.

At last, submit the codes of TestCode Project.

Material : Test.zip, testing-template.docx, testing-instruction.docx