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**Activity**

Relationships, Queries, and Reports

MODULE 14: Database Applications

This **activity** was written for the Florida Public School System DIGITAL INFORMATION TECHNOLOGY (8207310) course. Funded by the Cyber/IT Pathways Program, Cyber Florida, and the Florida Department of Education.

# Module 14: Database Applications

## Activity: Relationships, Queries, and Reports

The student uses two pre-made database files to practice creating relationships between database tables, creating queries from database tables, and creating reports from database tables and database queries.

## Standards Assessed

* **07.01** Create different forms for inputting data into a database application.
* **07.03** Create and modify a database by importing data from other sources.
* **07.04** Create and manage database tables by hiding fields, importing data, adding total rows.
* **07.05** Modify queries by renaming, adding/removing fields, sorting, formatting, and adding calculated fields.
* **07.06** Create and format reports with multiple columns, calculated fields, and images.

## Teacher Notes

Students will use two pre-made Microsoft Access files to create queries and reports.

Files: NBA-Top10-Players2022-2023.accdb and NBA-Teams.accdb

## Estimated Student Completion Time

* 45 minutes x 2-3 classes to complete the activity

## Activity Rubric

Consider evaluating the student’s work based on measures of quality. For example, with a maximum of 4 Points Possible, the following could be applied to the activity:

* **1 Point Earned** = ***Needs Improvement*** (the student work did not meet more than 50% of the requirements and did not follow instructions)
* **2 Points Earned** = ***Developing*** (the student met between 50% and 75% of the requirements and generally followed the instructions)
* **3 Points Earned** = ***Sufficient*** (the student met between 75% and 90% of the requirements and clearly followed instructions)
* **4 Points Earned** = ***Above Average*** (the student met > 90% of the requirements and followed all instructions)

# Activity: Relationships, Queries, and Reports

**Students Instructions**: Complete the following tasks using two pre-made database files.

1. Open the file: **NBA-Top10-Players2022-2023.accdb**.
2. Open the file: **NBA-Teams.accdb**.
3. Import the NBA Teams Table into the NBA Top 10 Players file.

**Create Relationship Between Files**

1. Select the Database Tools ribbon tab, the select **Relationships** to see the Add Tables pane.
2. Select NBA Top 10 2022-2023, then select the **Add Selected Tables** button.
3. Select Teams, then select the **Add Selected Tables** button.
4. Drag the Team field from the Team table onto the Team field in the NBA Top 10 2022-2023 table.
5. In the Edit Relationships dialog box, click **Create**.
6. Verify you see a line connecting the two fields between the tables.
7. Select **Close**, then select Yes to save the changes.

**Create a Query**

1. Create a query that displays the team division for each of the NBA Top 10 players, along with each player’s first name, last name, and team.
2. Click the **Create** tab; click **Query Wizard**.
3. Select **Simple Query Wizard**; click **OK**.
4. In the Tables/Queries field, make sure **Table: NBA Top 10 Players** is selected.
5. In the Available Fields, click **First Name**; click > to select the field.
6. Repeat and select the **Last Name** and **Team** fields.
7. In the Tables/Queries field, select **Table: Teams.**
8. Select the **Division** field.
9. Select **Finish** to run the query.
10. View the Structure Query Language (SQL) code generated by the query. To view the SQL code generated, complete the following steps:
    1. Open the query in Query Design View.
    2. Then select the “View” drop-down button in the “Results” button group on the “Design” tab of the “Query Tools” contextual tab in the Ribbon.
    3. From the drop-down menu, select the “SQL View” command.

**Reports**

1. Create a report from the NBA Top 10 Players Query.
2. Insert an image of your choice in the background of the report.
3. Change the report layout to landscape.
4. Add elements to make the report more detailed (date, page number, etc.)