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# BUSINESS INTELLIGENCE

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Lab 2



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KRISHNA BHARAT PASUMARTHY  
h21pasbh@du.se

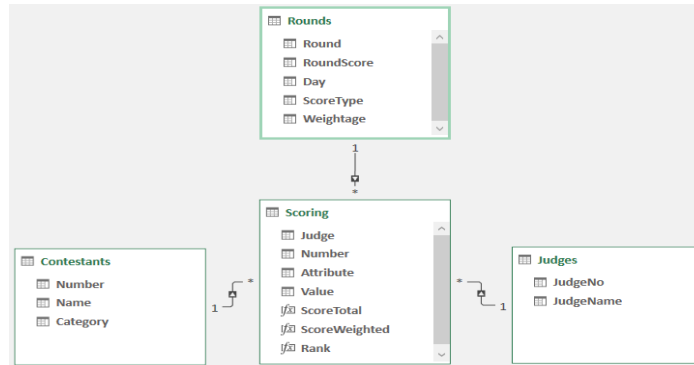
## **TASK 1**

### **Problem:**

Create a pivot table to help organizers visualize ranking of the contestants based on scores along with some slicers to filter on.

### **Steps performed to create a pivot table from the data provided in excel:**

- ❖ Open the excel sheet named “beauty\_pageant\_score\_data.xlsx”.
- ❖ The excel has 9 tables namely:
  - Rounds: Gives the information of each round in the contest.
  - Judges: Gives the information of the 6 judges who scores the contestants
  - Contestants: Gives the information of each contestant.
  - Judge 1-6: Gives the score values of every judge to each of the contestant
- ❖ For creating the required pivot table, we would need all the above tables, but since we have all 6 Judge tables in the same structure, we can combine them into one and use 4 tables instead of 9 tables.
- ❖ Open a new workbook and import all 6 Judge tables using the get data option in data tab.
- ❖ Create a query to append all the 6 tables into 1 table and name that sheet as Scoring.
- ❖ While creating the query, need to make sure that the column headers are appropriate in each table and use the option ‘Use first row as header’ option, till the headers are set properly for all 6 tables.
- ❖ Now a new query named Scoring is created with all the columns from the 6 Judge tables with data appended, we do not need the name column so we can drop column using the remove column option.
- ❖ We can unpivot the query to make it use for creating the pivot table as per our requirement. So, after unpivoting we have only 4 columns in the scoring table.
- ❖ Once we have the Scoring table is created as per our need, we can proceed with creating the model.
- ❖ We need to select all the rows including header from each of the 4 tables (Scoring, Judges, Contestants and Rounds) and add them to the model one after the other.
- ❖ Once the tables are included in the model, we can establish the relationships by using the create relationship option in the design tab of the power pivot.
- ❖ Now we create relationships to link the primary and foreign keys from Judges, Rounds, Contestants to Scoring tables.
- ❖ In the Diagram view of the Home tab, we can see the relationships created for each table as shown below.



- ❖ Once the relationships are created, we can go back to the excel and select pivot table option in the inset tab of excel.
- ❖ Rename that tab as Results as we are storing our final dashboard in that tab.
- ❖ For creating pivot table select the number and name columns from the contestants table.
- ❖ Click on the power pivot > Measures > New Measure. We get a dialog box to fill in the information of the new measure we are creating and blank space to code the Dax measure we want to apply in the pivot table.
- ❖ So, in this way we create 3 measures Score total, Score weighted and rank as per the requirement.

Manage Measures	
New	Edit Delete
Measure	Formula
Rank	IF(ISBLANK(Scoring[ScoreWeighted]),BLANK(),RANKX(ALLSELECTED(Contestants),Scoring[ScoreWeighted]))
ScoreTotal	SUM(Scoring[Value])
ScoreWeighted	SUMX(Scoring,RELATED(Rounds[Weightage])*Scoring[Value])

- ❖ Once the measures are created, we are ready to create the slicers to filter the data as per organizers requirements.
- ❖ Below is the sample output after slicing the data to know who the winner in Miss Category is.

Slicers Image:			Result After Slicing:		
<p>Category</p> <p>Miss</p> <p>Mrs</p> <p>Day</p> <p>Day 1</p> <p>Day 2</p>	<p>Round</p> <p>Ethnic</p> <p>Q&amp;A</p> <p>Talent</p> <p>Western</p> <p>ScoreType</p> <p>Performance</p> <p>Presentation</p>	<p>JudgeName</p> <p>Dale</p> <p>Ethel</p> <p>Glynda</p> <p>Jonie</p> <p>Norene</p> <p>Peter</p>	<p>Number</p> <p>Name</p> <p>ScoreTotal</p> <p>ScoreWeighted</p> <p>Rank</p>	<p>E</p> <p>Natasha</p> <p>338.0</p> <p>48.0</p> <p>1</p>	<p>H</p> <p>Lila</p> <p>336.5</p> <p>47.9</p> <p>2</p>
			<p>D</p> <p>Nina</p> <p>329.0</p> <p>47.0</p> <p>3</p>	<p>B</p> <p>Karina</p> <p>278.0</p> <p>34.6</p> <p>4</p>	<p>C</p> <p>Marisa</p> <p>273.0</p> <p>34.1</p> <p>5</p>
			<p>G</p> <p>Anaya</p> <p>266.0</p> <p>33.3</p> <p>6</p>	<p>F</p> <p>Tara</p> <p>266.5</p> <p>33.3</p> <p>7</p>	<p>I</p> <p>Yasmin</p> <p>263.0</p> <p>33.0</p> <p>8</p>
			<p>A</p> <p>Amaya</p> <p>251.0</p> <p>31.3</p> <p>9</p>		

## TASK 2

**Link the Dashboard Published:** Refer 2<sup>nd</sup> tab for new plots.

[https://app.powerbi.com/links/YEiwO9ZwuL?ctid=2a321059-9ff4-4c61-a0fc-a95be6d81ed1&pbi\\_source=linkShare&bookmarkGuid=1c262f20-cb62-4320-8807-8b25904258af](https://app.powerbi.com/links/YEiwO9ZwuL?ctid=2a321059-9ff4-4c61-a0fc-a95be6d81ed1&pbi_source=linkShare&bookmarkGuid=1c262f20-cb62-4320-8807-8b25904258af)