Revision

1. Write a query that will display one column named 'Product Info'. You are also to perform the following tasks:
    - The column should include the information which is stored in the ProductNumber, ProductID and Name columns. These three columns must be combined into a single column using a single-row function and the result must be formatted as follows:

      Product Number: <*ProductNumber*> with Product Id: <*ProductID*> is named <*Name*>

    - Only those products having 'Red' or 'Blue' colour should be returned
    - The content in the ProductNumber is to be modified such that all its letters are in small-case only.

    Sample output:

	Product Info
1	Product Number: fr-r92r-58 with Product Id: 706 is named HL Road Frame - Red, 58
2	Product Number: hl-u509-r with Product Id: 707 is named Sport-100 Helmet, Red
3	Product Number: hl-u509-b with Product Id: 711 is named Sport-100 Helmet, Blue
4	Product Number: fr-r92r-62 with Product Id: 717 is named HL Road Frame - Red, 62
5	Product Number: fr-r92r-44 with Product Id: 718 is named HL Road Frame - Red, 44

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    Table to be used: Production.Product

    Number of rows: 64

2. Write a query that displays four columns named 'Name', 'CostRate', 'Round to nearest whole number' and 'Truncate to the nearest whole number'. You are to perform the following tasks as well:
    - Return the Name and CostRate (first two columns) directly from the table
    - Round the CostRate to the nearest whole number (third column)
    - Truncate the CostRate to the nearest whole number (fourth column)
    - You are to make sure that the result is sorted such that the product with the highest availability is placed first

    Sample output:

	Name	CostRate	Round to nearest whole number	Truncate to nearest whole number
1	Debur and Polish	14.50	15.00	14.00
2	Paint	15.75	16.00	15.00
3	Subassembly	12.25	12.00	12.00
4	Final Assembly	12.25	12.00	12.00
5	Frame Welding	25.00	25.00	25.00

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    Table to be used: Production.Location

    Number of rows: 14

3. Write a query that will display three columns named ‘Product Number’, ‘Product Category’ and ‘Product Code’. Your answer should also include the following:
    - The ProductNumber as found in the database in the ‘Product Number’ column
    - The first 2 characters (in ProductNumber) in the ‘Product Category’ column
    - The last 4 characters (in ProductNumber) after the dash in the ‘Product Code’ column.
    - Only those products with a ProductNumber which have less than 8 characters in it are to be shown.
    - Sort the results in ascending order using the ProductNumber.

    Sample output:

	Product Number	Product Category	Product Code
1	AR-5381	AR	5381
2	BA-8327	BA	8327
3	BB-7421	BB	7421
4	BB-8107	BB	8107

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    Table to be used: Production.Product

    Number of rows: 291

4. Write a query that will display two columns named ‘Name’ and ‘Availability’ respectively. Your answer should also include the following:
    - The Name of the location as found in the database (in the first column)
    - The second column should display :
        - ‘Not Available’ if the availability is equal to 0,
        - ‘Limited Availability’ if the availability is larger than 0 and smaller than 100 and
        - ‘Highly available’ otherwise.

    Sample output:

	Name	Availability
1	Tool Crib	Not Available
2	Sheet Metal Racks	Not Available
3	Paint Shop	Not Available
4	Paint Storage	Not Available
5	Metal Storage	Not Available
6	Miscellaneous Storage	Not Available
7	Finished Goods Storage	Not Available
8	Frame Forming	Limited Availability
9	Frame Welding	Highly Available

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    Table to be used: Production.Location

    Number of rows: 14

5. Write a query that will display three columns named ‘Product Name’, Selling Day’ and ‘Complete Date’ respectively. Your answer should also include the following:
    - The first column should display the Product name
    - The second column should return the name of the day of the week of the SellStartDate
    - The last column should return the complete SellStartDate in the following format (dd Mon yyyy). The code that is to be used to obtain the mentioned date format is 106.

    Sample output:

	Product Name	Selling Day	Complete Date
1	Adjustable Race	Wednesday	30 Apr 2008
2	Bearing Ball	Wednesday	30 Apr 2008
3	BB Ball Bearing	Wednesday	30 Apr 2008
4	Headset Ball Bearings	Wednesday	30 Apr 2008
5	Blade	Wednesday	30 Apr 2008

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    Table to be used: Production.Product

    Number of rows: 504

6. Modify the below query such that the ‘Color’ column returns ‘No Color yet’ if the value of the color is NULL in the database and the actual color otherwise.

```
SELECT ProductNumber, Color 'Color'
FROM Production.Product
```

    Sample output:

	ProductNumber	Color
1	AR-5381	No Color yet
2	BA-8327	No Color yet
3	BE-2349	No Color yet
4	BE-2908	No Color yet
5	BL-2036	No Color yet
6	CA-5965	Black
7	CA-6738	Black

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    Table to be used: Production.Product

    Number of rows: 504

7. Modify the below query such that it returns only those rows which have a valid color in the third column. In other words, products with no color should not be returned.

```
SELECT ProductID, ProductNumber, Color 'Color'
FROM Production.Product
```

Sample output:

	ProductID	ProductNumber	Color
1	317	CA-5965	Black
2	318	CA-6738	Black
3	319	CA-7457	Black
4	320	CB-2903	Silver

•••

Table to be used: Production.Product

Number of rows: 256

8. Modify the below query such that only two columns are returned 'ProductNumber' and 'Details'.

```
SELECT ProductNumber, Color, Weight, ProductLine
FROM Production.Product
```

The 'Details' column should return the first non-null value in Color, Weight, and ProductLine. If all these 3 columns for a particular product are NULL, then 'No Information' is to be included (as with product AR-5381). The below screenshot shows the expected output (in last column) for different data combinations in the Color, Weight and ProductLine columns.

	ProductNumber	Color	Weight	ProductLine	Details
1	AR-5381	NULL	NULL	NULL	No Information
2	CA-5965	Black	NULL	NULL	Black
3	RM-M464	NULL	435.00	NULL	435.00
4	HB-R504	NULL	NULL	R	R
5	RW-T905	Black	NULL	T	Black
6	BK-R68R-48	Red	17.13	R	Red

Sample output:

	ProductNumber	Details
1	AR-5381	No Information
2	BA-8327	No Information
3	BE-2349	No Information
4	BE-2908	No Information
5	BL-2036	No Information
6	CA-5965	Black
7	CA-6738	Black

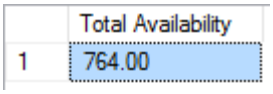
•••

Table to be used: Production.Product

Number of rows: 504

9. Write a query that will display a column named 'Total Availability'. This column should include the total availability of all the values found in the Availability column.

   Sample output:

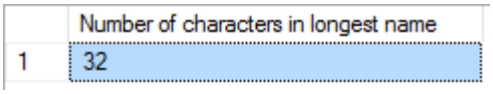
	Total Availability
1	764.00

   Table to be used: Production.Location

   Number of rows: 1

10. Write a query that will return one single column named 'Number of characters in longest name'. This column should include the number of characters in the longest Name

    Sample output:

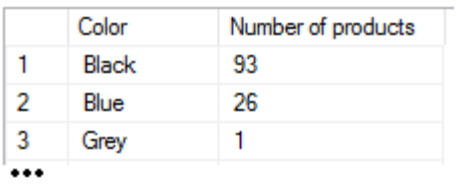
	Number of characters in longest name
1	32

    Table to be used: Production.Product

    Number of rows: 1

11. Write a query that will return two columns named 'Color' and 'Number of products'. Your answer should also include the following:
    - An entry for each different color in the Color column.
    - The 'Number of products' columns should return the number of products for each particular Color.
    - Any products who have not been assigned a value should not be returned.

    Sample output:

	Color	Number of products
1	Black	93
2	Blue	26
3	Grey	1

    Table to be used: Production.Product

    Number of rows: 9

12. Write a query that will display three columns named ‘ProductID’, ‘Total Resource Hours’ and ‘Number of Operations’. Your answer should also include the following:
    - The total number of ActualResourceHrs per product (in the second column)
    - The number of OperationSequences per product (in the third column).
    - Those products who have a value higher than 2000 in the last column.

    Sample output:

	ProductID	Total Resource Hours	Number of Operations
1	945	7845.5000	2210
2	813	10928.6000	3093
3	748	8430.4000	2874
4	519	7091.0000	2026
5	811	8702.6000	2463
6	804	7838.4000	2208
7	810	10006.4000	2832
8	747	8219.2000	2802

    Table to be used: Production.WorkOrderRouting

    Number of rows: 8

13. Write a query that will return three columns named ‘Least List Price’, ‘Class’ and ‘Style’. This query should display the smallest ListPrice for every different Class and Style combination. You are to make sure that your query handles the following:
    - The smallest ListPrice should be in the first column
    - The second column should be the product class
    - The last column should be product style.
    - Only products with values ‘L’ and ‘M’ in the Class column are to be returned.
    - Values in the first column should be greater than 200.

    Sample output:

	Least List Price	Class	Style
1	249.79	L	U
2	348.76	M	U
3	364.09	M	W

    Table to be used: Production.Product

    Number of rows: 3