

DATA ANALYSIS - OVERVIEW

Lecture #1



AGENDA

- Types of data analysis
- Data analysis process
- Data analysis with MS Excell
- Working with range names

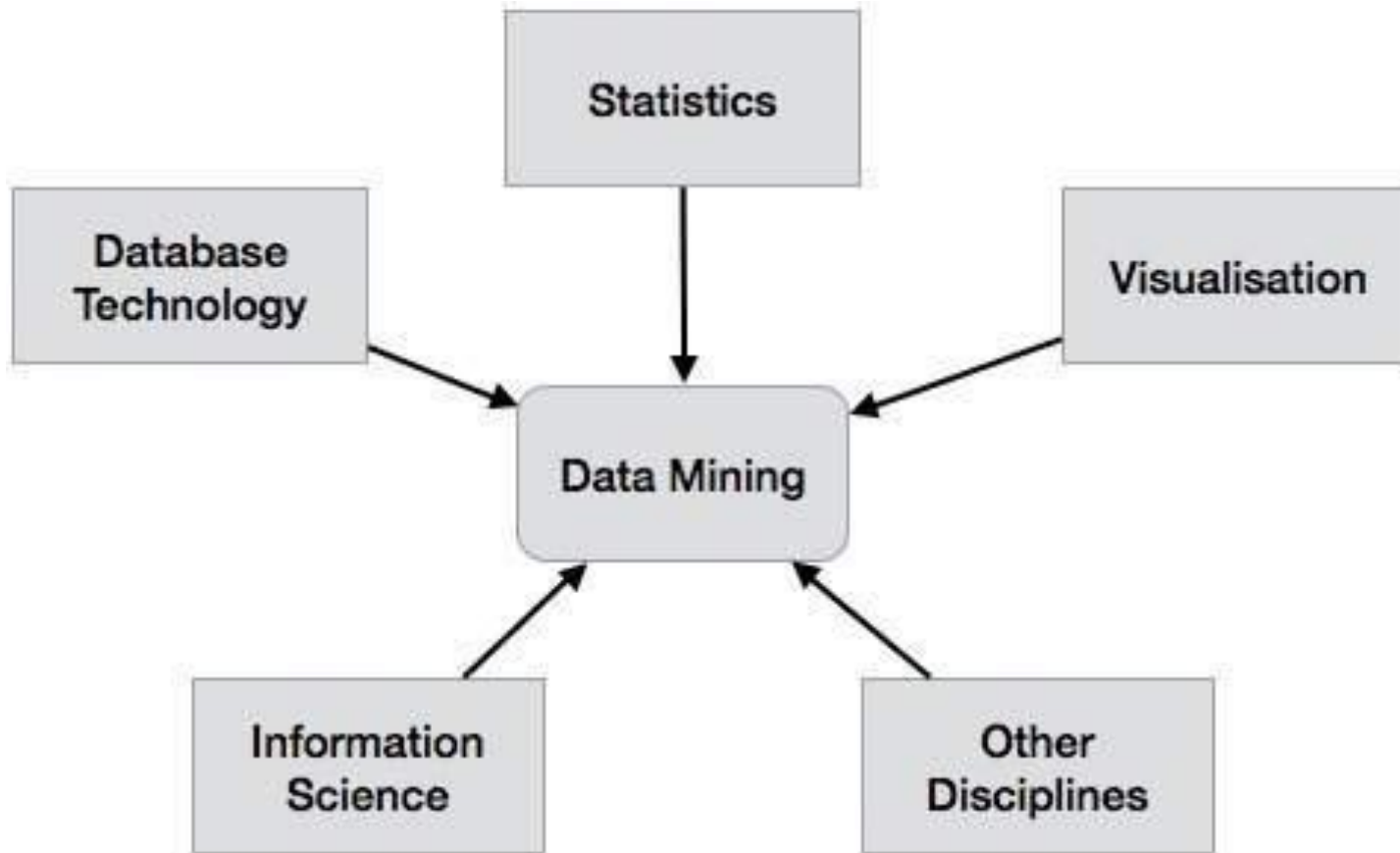


TYPES OF DATA ANALYSIS

- Data mining
- Business Intelligence
- Statistical analysis
- Predictive analytics
- Text analytics



DATA MINING



- Data Mining is the analysis of large quantities of data to extract previously unknown, interesting patterns of data, unusual data and the dependencies.



BUSINESS INTELLIGENCE

- The goal of business intelligence is to allow easy interpretation of large volumes of data to identify new opportunities.



Statistical Analysis



STATISTICAL ANALYSIS

- Statistics is the study of collection, analysis, interpretation, presentation, and organization of data.



PREDICTIVE ANALYTICS

PREDICTIVE ANALYTICS



BUSINESS



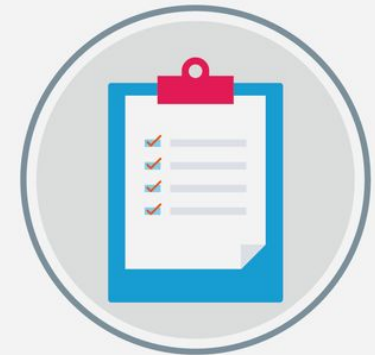
BANKING AND
FINANCE



RETAIL



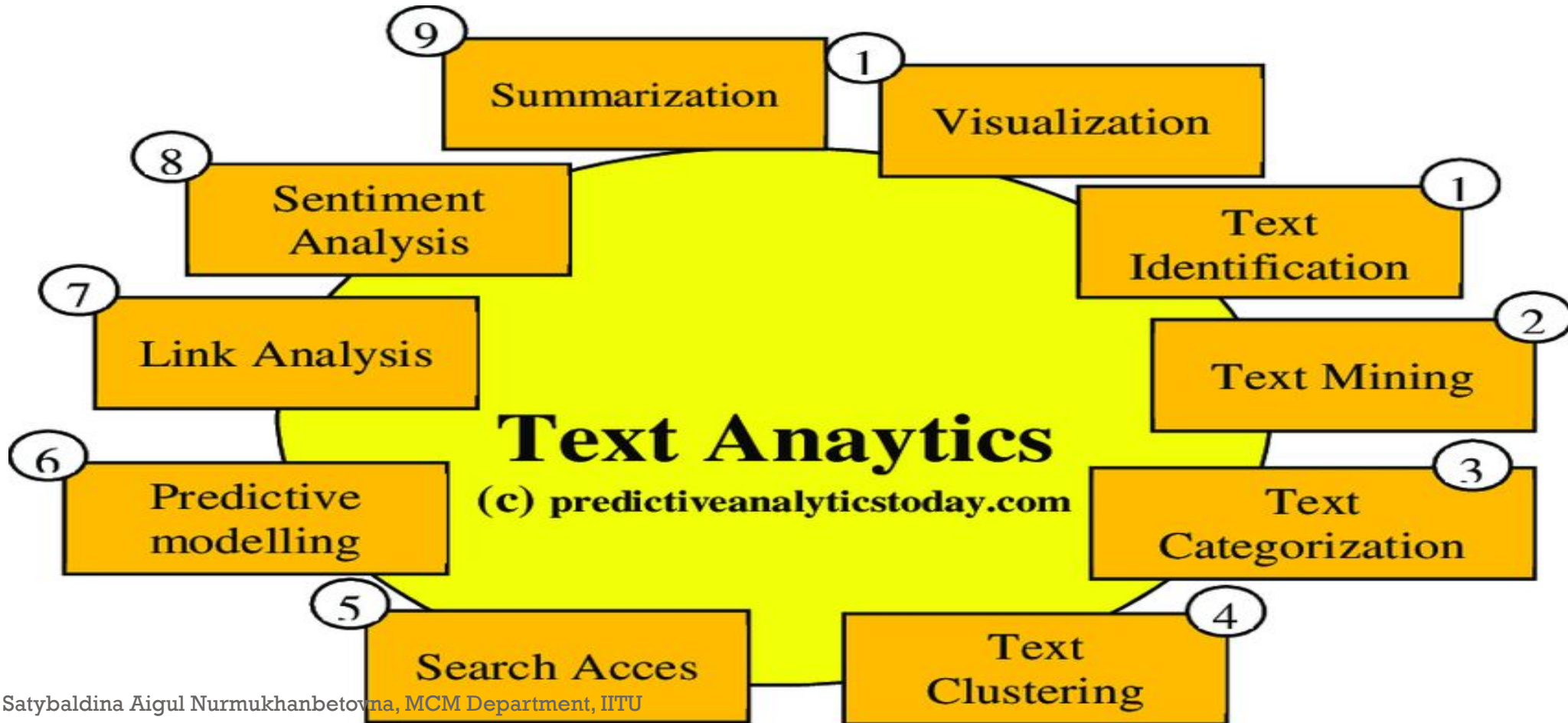
TELECOMMUNICATIONS



CREDIT SCORING



TEXT ANALYTICS

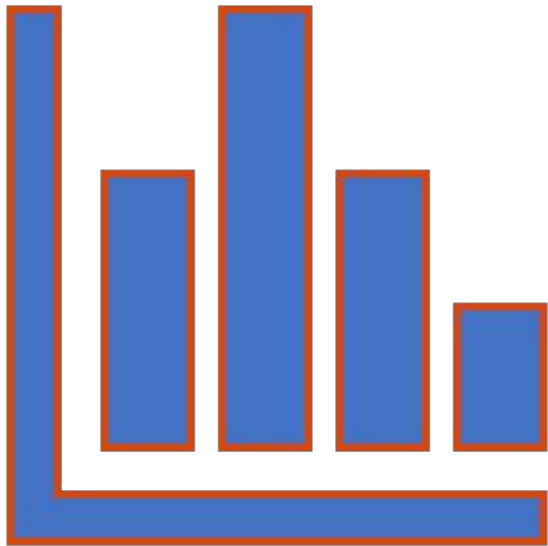


DATA ANALYSIS PROCESS

- Data Analysis Process consists of the following phases that are iterative in nature
 - Data Requirements Specification
 - Data Collection
 - Data Processing
 - Data Cleaning
 - Data Analysis
 - Communication



DATA ANALYSIS WITH MS EXCELL



- **Conditional Formatting,**
- **Ranges,**
- **Tables,**
- **Text functions,**
- **Date functions,**
- **Time functions,**
- **Financial functions,**
- **Subtotals,**
- **Quick Analysis,**
- **Formula Auditing,**
- **Inquire Tool,**
- **What-if Analysis,**
- **Solvers,**
- **Data Model,**
- **PowerPivot,**
- **PowerView,**
- **PowerMap, etc.**



WORKING WITH RANGE NAMES

- $\text{Net_Present_Value} = \text{NPV}(\text{Discount_Rate}, \text{Cash_Flows})$
- With Excel, you can create and use meaningful names to various parts of your data. The advantages of using range names include-
 - A meaningful Range name (such as `Cash_Flows`) is much easier to remember than a Range address (such as `C6:C8`).
 - Entering a name is less error prone than entering a cell or range address.
 - If you type a name incorrectly in a formula, Excel will display a `#NAME?` error.
 - You can quickly move to areas of your worksheet by using the defined names.
 - With Names, your formulas will be more understandable and easier to use. For example, a formula `Net_Income = Gross_Income - Deductions` is more intuitive than `C40 = C20 - B18`.
 - Creating formulas with range names is easier than with cell or range addresses. You can copy a cell or range name into a formula by using formula Autocomplete.





WORKING WITH RANGE NAMES

- you will learn-
 - Syntax rules for names.
 - Creating names for cell references.
 - Creating names for constants.
 - Managing the names.
 - Scope of your defined names.
 - Editing names.
 - Filtering names.
 - Deleting names.
 - Applying names.
 - Using names in a formula.
 - Viewing names in a workbook.
 - Using paste names and paste list.
 - Using names for range intersections.
 - Copying formulas with names.





You can use any combination of letters, numbers and the symbols - underscores, backslashes, and periods. Other symbols are not allowed.



A name can begin with a character, underscore or backslash.



A name cannot begin with a number (example- 1stQuarter) or resemble a cell address (example- QTR1).



If you prefer to use such names, precede the name with an underscore or a backslash (example- \1stQuarter, _QTR1)



Names cannot contain spaces. If you want to distinguish two words in a name, you can use underscore (example- Cash_Flows instead of Cash Flows)



Your defined names should not clash with Excel's internally defined names, such as **Print_Area**, **Print_Titles**, **Consolidate_Area**, and **Sheet_Title**. If you define the same names, they will override the Excel's internal names and you will not get any error message.

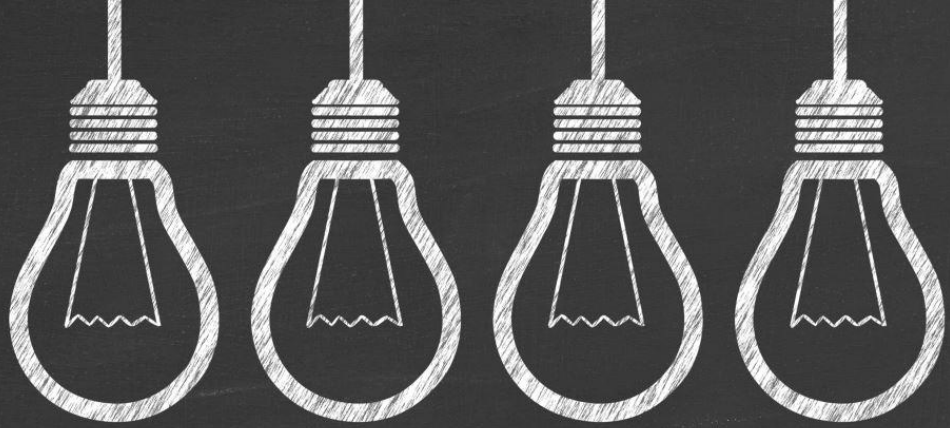
However, it is advised not to do so.



Keep the names short but understandable, though you can use up to 255 characters

EXCEL HAS THE FOLLOWING SYNTAX RULES FOR NAMES-





CREATING RANGE NAMES

- You can create Range Names in two ways-
 - Using the **Name box**.
 - Using the **New Name** dialog box.
 - Using the **Selection** dialog box.



CREATE A RANGE NAME USING THE NAME BOX

The screenshot illustrates the process of creating a range name in Excel. The Name Box on the left of the formula bar displays 'Array1', and the formula bar shows the value '120'. A range of cells (B3:C7) is selected and labeled 'Selected Range'. A formula cell (B9) contains the text 'Largest Value' and the value '800'.

	A	B	C	D	E	F	G	H
1								
2		Array1						
3		120	400					
4		800	250					
5		100	300					
6		120	150					
7		250	180					
8								
9		Largest Value		800				

- To create a Range name, using the **Name** box that is to the left of formula bar is the fastest way. Follow the steps given below-
 - Select the range for which you want to define a Name.
 - Click on the Name box.
 - Type the name and press Enter to create the Name.



CREATE A RANGE NAME USING THE NEW NAME DIALOG BOX

The screenshot shows the Excel interface with the 'Formulas' tab selected. The 'Define Name' group is expanded, and the 'New Name' dialog box is open. The dialog box contains the following information:

- Name: Array1
- Scope: Workbook
- Comment: (empty)
- Refers to: =Sheet72!\$B\$3:\$C\$7

The spreadsheet shows a range of cells (B3:C7) selected, which is labeled as 'Selected Range'. The name 'Array1' is entered in the 'Name' field. The 'Refers to' field shows the correct range reference. The 'OK' button is highlighted.

- You can also create Range Names using the New Name dialog box from Formulas tab.
- Select the range for which you want to define a name.
- Click the Formulas tab.
- Click Define Name in the Defined Names group. The **New Name** dialog box appears.
- Type the name in the box next to Name
- Check that the range that is selected and displayed in the Refers box is correct. Click OK.



CREATE A RANGE NAME USING THE CREATE NAMES FROM SELECTION DIALOG BOX

The screenshot shows the Microsoft Excel interface with the 'Formulas' tab selected. The ribbon includes 'Name Manager', 'Define Name', 'Use in Formula', and 'Create from Selection'. A range of cells (B2:C7) is selected, and a dialog box titled 'Create Names from Selection' is open. The dialog box has a title bar with a question mark and a close button. It contains the text 'Create names from values in the:' followed by four options: 'Top row' (checked), 'Left column', 'Bottom row', and 'Right column'. The 'OK' and 'Cancel' buttons are at the bottom. In the background, the spreadsheet shows a table with values in columns B and C, and a formula in cell D2 that returns '800' based on the 'Largest Value' in the selected range.

	B	C	D
2	Array1		
3	120	400	
4	800	250	
5	100	300	
6	120	150	
7	250	180	
9	Largest Value		800

- You can also create Range names using the **Create Names** from the Selection dialog box from Formulas tab, when you have Text values that are adjacent to your range.
- Select the range for which you want to define a name along with the row / column that contains the name.
- Click the Formulas tab.
- Click **Create from Selection** in the Defined Names group. The **Create Names from Selection** dialog box appears.
- **Select top row as the Text appears in the top row of the selection**
- Check the range that got selected and displayed in the box next to Refers to be correct. Click OK.



Formulas

FILE HOME INSERT PAGE LAYOUT **FORMULAS** DATA REVIEW VIEW INQUIRE POWERPivot

fx Insert Function Σ AutoSum Used ★ Recently Used Financial Functions Logical Functions Text Functions Date & Time Functions Lookup & Reference Functions Math & Trig Functions More Functions

Function Library

B4 : X ✓ fx Kreiger, Doris

Defined Names

Create from Selection

- Define Name
- Use in Formula
- Create from Selection

Selected Range

	A	B	C	D	E	F
1		First Quarter Exam Scores				
2						
3		Student	Exam 1	Exam 2	Exam 3	Exam 4
4		Kreiger, Doris	87	90	79	96
5		Oliviera, Manuel	92	94	85	97
6		Kodeda, Adam	88	95	75	80
7		Lange, Michael	85	87	87	88
8		Taylor, Maurice	81	88	82	85
9						
10						

Create Names from Selection Dialog Box

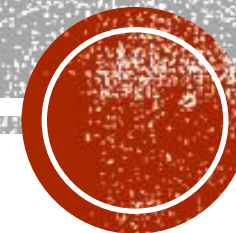
Create Names from Selection

Create names from values in the:

- Top row
- Left column ← **Left column**
- Bottom row
- Right column

OK Cancel

YOU CAN CREATE NAMES WITH MULTIPLE SELECTION ALSO. IN THE EXAMPLE GIVEN BELOW, YOU CAN NAME THE ROW OF MARKS OF EACH STUDENT WITH THE STUDENT'S NAME.



	A	B	C	D	E	F	G
1		First Quarter Exam Scores					
2							
3		Student	Exam 1	Exam 2	Exam 3	Exam 4	Total
4		Kreiger, Doris	87	90	79	96	=SUM(Kreiger_Doris)
5		Oliviera, Manuel	92	94	85	97	=SUM(Oliviera_Manuel)
6		Kodeda, Adam	88	95	75	80	=SUM(Kodeda_Adam)
7		Lange, Michael	85	87	87	88	=SUM(Lange_Michael)
8		Taylor, Maurice	81	88	82	85	=SUM(Taylor_Maurice)

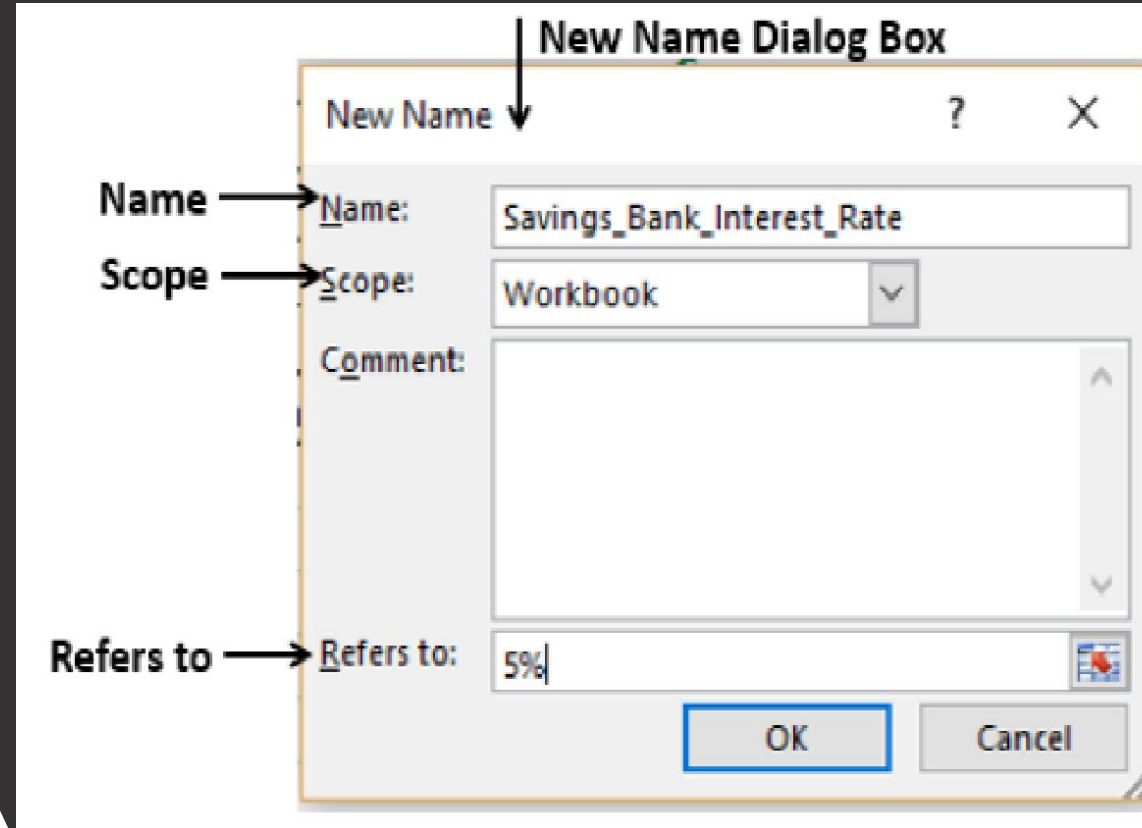
Range Names in
Formulas

NOW, YOU CAN FIND THE TOTAL MARKS FOR EACH STUDENT WITH =SUM (STUDENT NAME), AS SHOWN BELOW.



CREATING NAMES FOR CONSTANTS

- Suppose you have a constant that will be used throughout your workbook. You can assign a name to it directly, without placing it in a cell.
- In the example below, Savings Bank Interest Rate is set to 5%.
- Click Define Name.
- In the New Name dialog box, type Savings_Bank_Interest_Rate in the Name box.
- In Scope, select Workbook.
- In Refers to box, clear the contents and type 5%.
- Click OK.



Name Manager Dialog Box

Name Manager

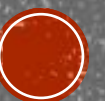
New... Edit... Delete... Filter...

Name	Value	Refers To	Scope
Amount_Borrowed	\$400,000.00	=Mortgage!\$C\$2	Workbook
Annual_Interest_Rate	6%	=Mortgage!\$C\$4	Workbook
Cash_Flows	{ (600); 200 ; 20...	=NPV!\$C\$5:\$C\$8	Workbook
Exam_1	{87;92;88;85;...	=Student Marks!\$...	Workbook
Exam_2	{90;94;95;87;...	=Student Marks!\$...	Workbook
Exam_3	{79;85;75;87;...	=Student Marks!\$...	Workbook
Exam_4	{96;97;80;88;...	=Student Marks!\$...	Workbook
Interest_Rate	10%	=NPV!\$C\$2	NPV
New_Array	{120;400;800;...	=Large Value!\$B\$...	Workbook
Number_of_Months	180	=Mortgage!\$C\$3	Workbook
Savings_Bank_Interest_Rate	0.05	=0.05	Workbook

Name Value Refers to Scope

Refers to:

Close



Formulas

Name Manager

Name Manager Dialog Box

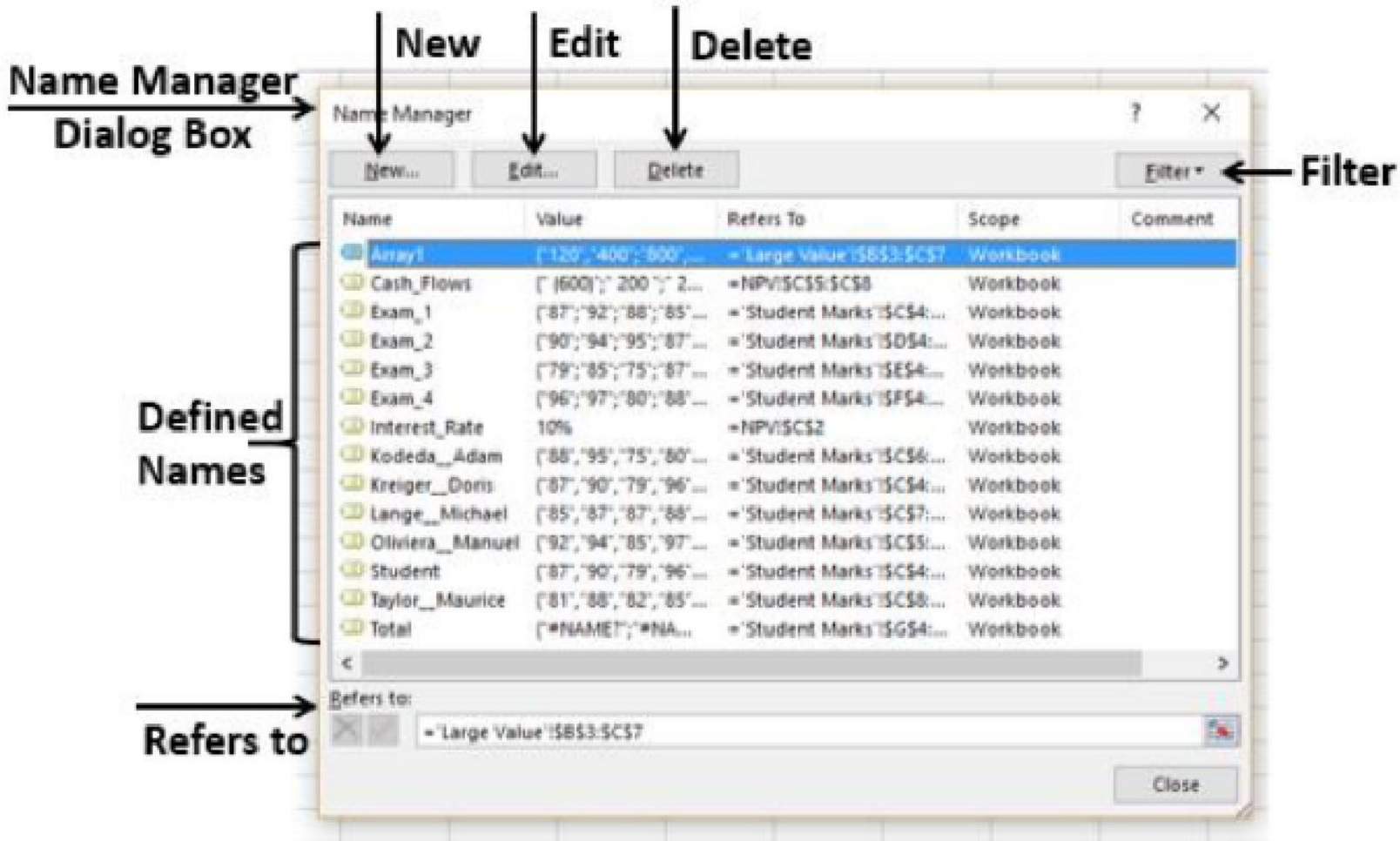
Defined Names

Name	Value	Refers To	Scope	Comment
Array1	{120; 400; 800; ...}	=Large Value!\$B\$3:\$C\$7	Workbook	
Cash_Flows	{(600); 200; 200; ...}	=NPV!\$C\$5:\$C\$8	Workbook	
Exam_1	{87; 92; 88; 85; ...}	=Student Marks!\$C\$4:...	Workbook	
Exam_2	{90; 94; 95; 87; ...}	=Student Marks!\$D\$4:...	Workbook	
Exam_3	{79; 85; 75; 87; ...}	=Student Marks!\$E\$4:...	Workbook	
Exam_4	{96; 97; 80; 88; ...}	=Student Marks!\$F\$4:...	Workbook	
Interest_Rate	10%	=NPV!\$C\$2	Workbook	
Kodeda_Adam	{88; 95; 75; 80; ...}	=Student Marks!\$C\$6:...	Workbook	
Kreiger_Doris	{87; 90; 79; 96; ...}	=Student Marks!\$C\$4:...	Workbook	
Lange_Michael	{85; 87; 87; 88; ...}	=Student Marks!\$C\$7:...	Workbook	
Oliviera_Manuel	{92; 94; 85; 97; ...}	=Student Marks!\$C\$5:...	Workbook	
Student	{87; 90; 79; 96; ...}	=Student Marks!\$C\$4:...	Workbook	
Taylor_Maurice	{81; 88; 82; 85; ...}	=Student Marks!\$C\$8:...	Workbook	
Total	{#NAME?; #NA; ...}	=Student Marks!\$G\$4:...	Workbook	

MANAGING NAMES

- An Excel Workbook can have any number of named cells and ranges. You can manage these names with the Name Manager.
- Click the Formulas tab.
- Click **Name Manager** in the **Defined Names** group. The **Name Manager** dialog box appears. All the names defined in the current workbook are displayed.





- The List of **Names** are displayed with the defined **Values, Cell Reference** (including Sheet Name), **Scope** and **Comment**.
- The Name Manager has the options to-
 - Define a **New** Name with the **New** Button.
 - **Edit** a Defined Name.
 - **Delete** a Defined Name.
 - **Filter** the Defined Names by Category.
 - Modify the Range of a Defined Name that it **Refers to**.





SCOPE OF A NAME

- The **Scope** of a name by default is the workbook. You can find the **Scope** of a defined names from the list of names under the **Scope** column in the **Name Manager**.
- You can define the **Scope** of a **New Name** when you define the name using **New Name** dialog box. For example, you are defining the name Interest_Rate. Then you can see that the **Scope** of the **New Name** Interest_Rate is the **Workbook**.



Formulas

Define Name

Defined Names

Selected Cell

New Name Dialog Box

Name

Scope

Comment

Refers to

Year	Cash flow
0	(600)
1	200
2	200
3	500

NPV 112

- Suppose you want the **Scope** of this interest rate restricted to this **Worksheet** only.
 - Click the down-arrow in the Scope Box. The available Scope options appear in the drop-down list.



Selected Cell

New Name Dialog Box

1			
2	Interest Rate	10%	
3			
4	Year	Cash flow	
5		0	(600)
6		1	200
7		2	200
8		3	500
9			
10	NPV		112
11			
12			
13			
14			
15			
16			
17			
18			
19			
20	Worksheet Names in the Workbook		
21			
22			
23			

New Name ? X

Name: Interest_Rate

Scope: Workbook **Scope**

Comment: **Scope Options**

- Workbook
- NPV
- Large Value
- Student Marks
- Sheet5

Refers to: =NPV!\$C\$2 **Refers to**

OK Cancel

NPV | Large Value | Student Marks | Sheet5



Name Manager Dialog Box

Scope Column

Name	Value	Refers To	Scope	Comment
Interest Rate	10%	=NPV!\$C\$2	NPV	
Array1	{120;400;800;...}	=Large Value!\$B\$3:\$C\$7	Workbook	
Cash_Flows	{(600);200;200}	=NPV!\$C\$5:\$C\$8	Workbook	
Exam_1	{87;92;88;85}	=Student Marks!\$C\$4:...	Workbook	
Exam_2	{90;94;95;87}	=Student Marks!\$D\$4:...	Workbook	
Exam_3	{79;85;75;87}	=Student Marks!\$E\$4:...	Workbook	
Exam_4	{96;97;80;88}	=Student Marks!\$F\$4:...	Workbook	
Kodeda_Adam	{88;95;75;80}	=Student Marks!\$C\$6:...	Workbook	
Kreiger_Doris	{87;90;79;96}	=Student Marks!\$C\$4:...	Workbook	
Lange_Michael	{85;87;87;88}	=Student Marks!\$C\$7:...	Workbook	
Oliviera_Manuel	{92;94;85;97}	=Student Marks!\$C\$5:...	Workbook	
Student	{87;90;79;96}	=Student Marks!\$C\$4:...	Workbook	
Taylor_Maurice	{81;88;82;85}	=Student Marks!\$C\$8:...	Workbook	
Total	{#NAME!;#NA...}	=Student Marks!\$G\$4:...	Workbook	

Refers to: -NPV!\$C\$2

Scope of Interest Rate

- The Scope options include **Workbook**, and the sheet names in the workbook.
 - **2.** Click the current worksheet name, in this case NPV and click OK. You can define / find the sheet name in the worksheet tab.
 - **3.** To verify that Scope is worksheet, click **Name Manager**. In the Scope column, you will find NPV for Interest_Rate. This means you can use the Name Interest_Rate only in the Worksheet NPV, but not in the other Worksheets.

Note: Once you define the Scope of a Name, it cannot be modified later.



DELETING NAMES WITH ERROR VALUES

- Sometimes, it may so happen that Name definition may have errors for various reasons. You can delete such names as follows-
- **1.** Click **Filter** in the **Name Manager** dialog box.
- The following filtering options appear-
 - Clear Filter
 - Names Scoped to Worksheet
 - Names Scoped to Workbook
 - Names with Errors
 - Names without Errors
 - Defined Names
 - Table Names
- You can apply **Filter** to the **defined Names** by selecting one or more of these options.
- **2.** Select **Names with Errors**. Names that contain error values will be displayed.



Name Manager Dialog Box

Buttons: New... Edit... Delete Filter

Name	Value	Refers To
Kodecka_Adam	{'88','95','75','80','#NAME?']}	= 'Student Marks'!\$...
Kneiger_Goris	{'87','90','79','96','#NAME?']}	= 'Student Marks'!\$...
Lange_Michael	{'85','87','87','88','#NAME?']}	= 'Student Marks'!\$...
Oliviera_Manuel	{'92','94','85','97','#NAME?']}	= 'Student Marks'!\$...
Student	{'87','90','79','96','#NAME?','92','94',...}	= 'Student Marks'!\$...
Taylor_Maurice	{'81','88','82','85','#NAME?']}	= 'Student Marks'!\$...
Total	{'#NAME?','#NAME?','#NAME?','#NA...	= 'Student Marks'!\$...

Filter Options:

- Clear Filter
- Names Scoped to Worksheet
- Names Scoped to Workbook
- Names with Errors
- Names without Errors
- Defined Names
- Table Names

Worksheet Data:

Interest Rate	10%
Year	Cash flow
0	(600)
1	200
2	200
3	500
NPV	112

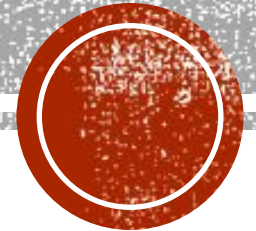
The screenshot shows an Excel spreadsheet with the following data:

Year	Cash flow
0	(600)
1	200
2	200
3	500

Below the table, the NPV is calculated as 112.

The Name Manager dialog box is open, showing a list of names. The 'Total' name is selected. The 'Delete' button is highlighted with a red circle.

FROM THE OBTAINED LIST OF NAMES, SELECT THE ONES YOU WANT TO DELETE AND CLICK DELETE.





EDITING NAMES

- You can use the **Edit** option in the **Name Manager** dialog box to-
 - Change the **Name**
 - Modify the **Refers to** range
 - Edit the **Comment** in a **Name**.



1			
2	Array1		
3	120	400	
4	800	250	
5	100	300	
6	120	150	
7	250	180	
8	385	485	
9			
10	Largest Value	=LARGE(Array1,1)	

- Click the cell containing the function **Large**.
- You can see, two more values are added in the array, but are not included in the function as they are not part of Array1.
- Click the **Name** you want to edit in the **Name Manager** dialog box. In this case, **Array1**.

CHANGE THE NAME



**CLICK
EDIT.
THE
EDIT
NAME
DIALOG
BOX
APPEARS**

Name Manager Dialog Box

The Name Manager dialog box is open, showing a list of names. The 'Array1' name is selected, and the 'Edit' button is highlighted. The 'Refers to' field shows the formula '=LARGE(Array1,1)'. The 'Scope' is 'Workbook'.

Name	Value	Refers To	Scope
Interest_Rate	10%	=NPV(SC\$2	NPV
Exam_4	{'96';'97';'80';'88';'85'}	= Student Marks'IS...	Workbo...
Exam_3	{'79';'85';'75';'87';'82'}	= Student Marks'IS...	Workbo...
Exam_2	{'90';'84';'95';'87';'88'}	= Student Marks'IS...	Workbo...
Exam_1	{'87';'92';'88';'85';'81'}	= Student Marks'IS...	Workbo...
Cash_Flows	{'(600)';'200';'200';'500'}	=NPV(SC\$5:SC\$8	Workbo...
Array1	{'120';'400';'800';'250';'100';'300';'120';'385';'485'}	= Large Value IS\$5...	Workbo...

Selected Name

Refers to: = Large Value'IS\$5:SC\$7

The screenshot shows an Excel spreadsheet with a named range 'Array1' defined in cells B3:C8. The formula bar shows the formula '=LARGE(Array1,1)' in cell B10. The 'Edit Name' dialog box is open, showing the current name 'Array1', scope 'Workbook', and the reference '=Large Value!\$B\$3:\$C\$7'. The dialog box has fields for Name, Scope, Comment, and Refers to. Arrows point to these fields with labels: 'Edit Name Dialog Box' points to the title bar, 'Name' points to the Name field, 'Comment' points to the Comment field, and 'Refers to' points to the Refers to field.

	A	B	C	D	E	F	G
1							
2		Array1					
3		120	400				
4		800	250				
5		100	300				
6		120	150				
7		250	180				
8		385	485				
9							
10		Largest Value =LARGE(Array1,1)					
11							
12							
13							

- **4.** Change the **Name** by typing the new name that you want in the **Name Box**.
- **5.** Click the **Range** button to the right of **Refers to** Box and include the new cell references.
- **6.** Add a **Comment** (Optional)
- Notice that **Scope** is deactive and hence cannot be changed.



Edit Name Dialog Box

Name: New_Array ← **Changed Name**

Scope: Workbook

Comment: New Values included. ← **Comment**

Modified Range

Refers to: =Large Value!\$B\$3:\$C\$8

Refers to

OK Cancel

Click OK. You will observe the changes made.

Name Manager Dialog Box

Changed Name

Changed Cell Reference

Comment Added

Name	Value	Refers To	Scope	Comment
New_Array	{120;400;800;250;100;300...}	=Large Value!\$B\$3:\$C\$8	Workbo...	New values included.
Interest_Rate	10%	=NPV!\$C\$2	NPV	
Exam_4	{'86';'87';'80';'88';'85'}	=Student Marks!\$F\$4:\$F\$8	Workbo...	
Exam_3	{'79';'85';'75';'87';'82'}	=Student Marks!\$E\$4:\$E\$8	Workbo...	
Exam_2	{'90';'84';'95';'87';'88'}	=Student Marks!\$D\$4:\$D\$8	Workbo...	
Exam_1	{'87';'92';'88';'85';'81'}	=Student Marks!\$C\$4:\$C\$8	Workbo...	
Cash_Flows	{1600;200;200;500}	=NPV!\$C\$5:\$C\$8	Workbo...	

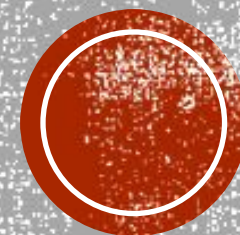
Changed Name reflected in the Function

Largest Value =LARGE(New_Array,1)

	A	B	C
13			
14		Amount Borrowed	400000
15		Number of Months	180
16		Annual Interest Rate	0.06
17		Monthly Payment	=-PMT(C16/12,C15,C14)

APPLYING NAMES

Consider the following example-



Formulas

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW INQUIRE POWERPIVOT

fx Insert Function

Σ AutoSum Used

★ Recently Used

Financial Logical Text Date & Time Reference Math & Trig Functions More Functions

Name Manager

Define Name

Define Name... Apply Names...

Defined Names

Apply Names

Defined Names

C17 : X ✓ fx =-PMT(C16/12,C15,C14)

	A	B	C	D	E	F
13						
14		Amount Borrowed	400000			
15		Number of Months	180			
16		Annual Interest Rate	0.06			
17		Monthly Payment	=-PMT(C16/12,C15,C14)			

Selected Cell

1. USING CREATE FROM SELECTION, DEFINE THE NAMES.
2. SELECT THE CELL CONTAINING THE FORMULA. CLICK NEXT TO DEFINE NAME IN THE DEFINED NAMES GROUP ON THE FORMULAS TAB. FROM THE DROP-DOWN LIST, CLICK APPLY NAMES.



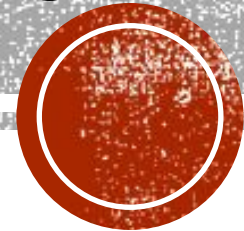
Microsoft Excel interface showing the FORMULAS tab. The active cell is C17, containing the formula $=-PMT(C16/12,C15,C14)$. The spreadsheet data is as follows:

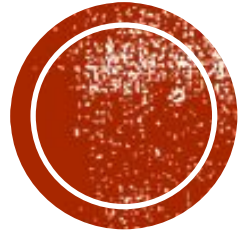
A	B	C
13		
14	Amount Borrowed	400000
15	Number of Months	180
16	Annual Interest Rate	0.06
17	Monthly Payment	$=-PMT(C16/12,C15,C14)$
18		
19		
20		
21		
22		
23		
24		
25		

The 'Apply Names' dialog box is open, showing a list of names: Amount Borrowed, Amt_Borrowed, Annual int rate, Annual Interest Rate, Cash_Flows, Exam_1, Exam_2, Exam_3, Exam_4, New_Array, and Number_of_Months. The 'Ignore Relative/Absolute' and 'Use row and column names' options are checked. The 'OK' button is highlighted.

3. THE APPLY NAMES DIALOG BOX APPEARS. SELECT THE NAMES THAT YOU WANT TO APPLY AND CLICK OK.

The selected names will be applied to the selected cells.





**THANK YOU FOR
ATTENTION**

Lecture 1