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INSTRUCTIONS

Create separate workbook for each assignment. Solve different questions in separate worksheets for each assignment.

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ASSIGNMENT 1 – FORMULAS AND FUNCTIONS

Q.1. You are the teacher-in-charge of senior sections in a school. There is a performance report to be prepared which requires some important data to be captured.

1. Create a New Workbook.
2. Enter 20 records which has Student Id, Student Name, English, Hindi, Science, Social Science and Sanskrit, Total, Average and result columns.

In relation to this task, perform the following on Microsoft Excel 2016.

1. Use "Sum" function to calculate "Total" marks for each Student.
2. Use "Average" funcction to calculate "Average" marks for each Student.
3. Using "If" function print "Pass" if average marks are above or equals to 50%, "Fail" if average marks are below 50% in the Result column.
4. Use "CountIf" function to print the number of Pass students and No. of Fail Students.

Student Id	Student Name	English	Hindi	Science	Social Science	Sanskrit	Total	Average	Result
1	Ankit	87	84	59	60	78	368	73.6	Pass
2	Sunil	34	45	42	47	53	221	44.2	Fail
							No. of Pass Students		1
							No. of Fail Students		1

Q.2. You are a credit officer in HDFC Bank and a customer approaches you to open a savings bank account. He is willing to credit Rs. 1000 per month in savings bank account. The customer is asking a series of queries and you need to answer the queries asked by the customer based on the details shown in the following table.

Month	Balance at the Beginning of the Month	Interest Rate	Interest for the Month	Monthly Payment	Balance at the End of the Month
1st Jan	1000	8%	80	1000	1080
1st Feb	1080	8%	160	1000	1160
1st Mar	1160	8%	240	1000	1240
1st Apr	1240	8%	320	1000	1320

Note : Above table is for reference only. Student need not to create the above table.

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You need to do the following for the customer:

1. Calculate the amount that can be saved by the customer in 48th months for a saving of Rs. 1000 per month at an interest rate of 8%.
2. Calculate the average interest that will be paid over a period of five years, if the interest rate for the years 2010, 2011, 2012, 2013 and 2014 are 8%, 5%, 9%, 12% and 5% respectively. Also, calculate the total amount he will be earning at the end of 2014.
3. Calculate the total amount of payments that will be paid over two years.
4. Calculate the total amount that will be gained after four years, if the customer invests Rs. 1000 as initial deposit and then pays Rs. 750 per month for four years at the rate of 6% per annum.

Q.3. You want to print "Report Cards" for each student. You want to make this process automated where you will enter the "Student ID" of the student and his/her report card will automatically be generated. Use data used in Q.1. in this assignment and create a student report card using "vlookup" function.

Your output format should look like:

Student Id	1	Student Name	Ankit
	Marks		
	English	87	
	Hindi	84	
	Science	59	
	Social Science	60	
	Sanskrit	78	
	Total	368	
	Average	73.6	
	Result	Pass	

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ASSIGNMENT 2 – CHARTS AND PRESENTATIONS

Q.1. **Aptech Pvt Ltd.** Maintains a year wise sales. You are the employee of the company and you have been asked to prepare different analysis for the company using Charting Tools. The instruction and data given by the authority are as follows:

Region/Year	Y2015	Y2016	Y2017	Y2018	Y2019
North	61088	75305	94344	81276	64786
East	80647	81239	58129	69881	59791
South	70270	97134	94331	82298	92802
West	63023	75212	99036	79181	92441
Center	71268	94679	71651	83904	50479

Note: Save All charts in separate worksheets.

a) Create "3-D stacked bar" chart showing Region/Year wise sales analysis of all records.
b) Create "Scatter Chart with Smooth lines" chart showing the trend in the sales records.
c) Calculate Region wise "Total Sales" for all regions and prepare a "3D Pie Chart" showing the performance of individual regions.
d) Calculate Year wise "Total Sales" for all years and prepare a "3D Pie Chart" showing the performance of individual regions.
e) Apply legend and labels on the charts created.

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ASSIGNMENT 3 – SHARING AND MAINTAINING WORKBOOK

Q.1. Assume that you are a student in an educational organization. Your computer teacher has completed the introductory chapter on Excel and then given you a task to perform in the lab. The task includes the following:

Name	Subject	Marks	Grade
Ankit	Java	89	A
Rahul	PHP	76	B
Pankaj	Python	45	C

a) Apply a workbook protection.
b) Share the workbook with protection.
c) Apply tracking changes to the shared worksheet.
d) Finalize the workbook.
e) Save the workbook as a customized template.

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ASSIGNMENT 4 – CONDITIONAL FORMATTING AND SORTING

Q.1. You are an employee of a stock trading company. There is a live price tracker to be prepared which requires some important data to be captured.

1. Create a New Workbook.
2. Enter records which has Company Name, Opening Price, High Price, Low Price, Current Trading Price and Volume of each stock.

Company Name	Opening Price	Low Price	High Price	Current Trading Price	Volume
HDFC Bank	540	535	555	541	989433
ICICI Bank	450	401	450	423	565456
Reliance Ltd.	1560	1523	1720	1620	2666552
Airtel	220	190	221	190	235534
SBI	240	210	263	253	435534
IRCTC	450	450	490	467	775556

In relation to this task, perform the following on Microsoft Excel 2016.

1. Sort the data in the order of "Volumes"
2. Apply conditional formatting on Current Trading Price such that.
    a. If CTP is greater than Opening Price highlight cell with Green Color.
    b. If CTP is lesser than Opening Price highlight cell with Red Color.
    c. If CTP is equal to Opening Price highlight cell with Yellow Color.

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ASSIGNMENT 5 – GOAL SEEK AND SCENARIO

Q.1. You wish to buy a car and have approached the car dealer, **True Valued Cars.** The dealer has offered you a Rs. 100000 trade-in on your old vehicle. The asking price for the car (before trade-in) is 800000. They will offer you 8% interest rate for a 5-year loan.

Calculate the following:

a) What is the amount you need to finance?
b) Use an appropriate function to determine what your monthly payments will be.
c) Use the Goal Seek tool to determine what the asking price of the car, before trade-in, would have to be to make a monthly payment of 15000.
d) Create a scenario summary report for both cases in your worksheet.

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ASSIGNMENT 6 – Pivot Table and Pivot Chart

Q.1. You are the lead of a business unit in **NewTech Consultancy Ltd.** There is a new proposal to be floated which requires important sales related data to be compiled.

Prepare a detailed data set containing the following:

1. Name of Products for Sale (Shirts, Pants, Socks, Shoes, T-Shirts, Hairband, Bangles).
2. Category of the Product (Garment, Accessory, Footwear).
3. Price of each product.
4. Region of Sale (North, East, South, West).
5. Sale value (Quantity) of each product in 4 different Quarters.

As part of this task, you need to now apply the following Data Analysis tools:

1. Find out the total sales in each category, region wise.
2. Total price of each category and arrange them in an ascending order.
3. Apply conditional formatting to divide products between low sales, medium sales and high sales range.
4. Draw a PivotTable to showcase region wise product performance.

Note: Download the Data for this task from here.