B.V. Raju College

(Formerly Dr. B.V. Raju Institute of Computer Education)
Affiliated to Adikavi Nannaya University
Vishnupur, BHIMAVARAM,
West Godavari Dist-534 202, A.P., India
Tel: 08816 - 250861/62,
Email: bvrcollege@rediffmail.com
www.bvricedegree.edu.in

9th Dec 2019

To

The Principal,

S.V.K.P & Dr. K.S. Raju Arts & Science College,

Penugonda.

Respected sir,

Sub: **Guest Speaker Invitation**

The department of Computer Science wishes to conduct a One-Day workshop on "**Sample Excel Projects**" for I BSc II Semester students of our college on 16-12-2019 from 10 AM to 1 PM.

Kindly depute one of your Computer Science faculty members as a resource person to deliver an expert lecture on "**Sample Excel Projects**". We believe that your contribution to this field is unparalleled and a workshop on this topic will be of great benefit.

Thanking you.

Yours Sincerely

PRINCIPAL
Dr. B.V.-R.I.C.E.
Vishnupur, BHIMAVARAM-534 202

S.V.K.P. & Dr. K.S. Raju Arts & Science College

(Autonomous)

Recognized by UGC as "College with Potential for Excellence"
Accredited by NAAC with grade 'A'

Dr.Y.V.V.APPA RAO, M.Sc., Ph.D.,
Principal

PENUGONDA - 534 320.
West Godavari District
Andhra Pradesh

10th Dec 2019

To,
   The Principal,
   B V Raju College,
   Vishnupur,
   Bhimavaram.

Respected sir,

Sub: Acceptance of Invitation to Seminar

Thank you for your invitation to the workshop on **"Sample Excel Projects"** hosted by Department of Computer Science, B V Raju College on **16-12-2019** from 10 AM to 1 PM.

I am happy to inform you that **Mr. K Trinadha Ravi Kumar, M.Tech., HOD of Computer Science** will be the resource person. Please send more information about this workshop directly to my attention.

As mentioned in your letter, this is an excellent opportunity to enhance our working relationship. We look forward to it.

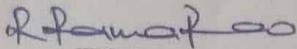Thanking you.

Yours Sincerely,

PRINCIPAL
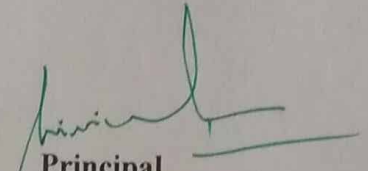S.V.KP & Dr.K.S.RAJU ARTS & SCIENCE COLLEGE (A)
PENUGONDA-534320, W.G.Dt.A.P

Tel : 08819 - (O) : 246126, 246926 I Mobile : 90663 65365
email : svkp_penugonda@rediffmail.com, svkp.penugonda@gmail.com, Web:www.svkpandksrajucollege.org.in
I Res. : 08819-247444 I Mobile : 9704448889 I email : yvvarao@gmail.com

CIRCULAR

It is informed to that; the department of Computer Science is conducting a One-Day workshop on **"Advanced Excel Functions"** for I BSc II Semester students by **Mr K Trinadh Ravi Kumar, MTech HOD of Computer Science S V K P & Dr K S Raju Degree College Penugonda** on 16th Dec 2019 from 10 AM to 1 PM. Interested students could consult Miss V Neelima to enrol your names.

HOD

Principal

PRINCIPAL
Dr. B.V. R.I.C.E.
Vishnupur, BHIMAVARAM-534 202.

B.V. Raju College

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www.bvricedegree.edu.in
www.srivishnu.edu.in

16th Dec 2019

To

Mr K Trinadh Ravi Kumar,

HOD of Computer Science,

S V K P & Dr K S Raju Degree College,

Penugonda.

Dear Sir,

Sub: Letter of Appreciation.

Thank you very much for delivering an informative and thought provoking lecture on "Sample Projects in Excels" held on 16th Dec 2019 at B V Raju College, Vishnupur, Bhimavaram.

It is really a splendid lecture that exposed our students to the field practices. All the students appreciated and got benefitted from your views on the subject.

Looking forward for your cooperation for the promotion of compute education in future as well.

Thanking you.

Received copy

Yours Sincerely,

PRINCIPA.

Dr. B.V. R.I.....
Vishnupur, BHIMAVARAM-534 202.

B V Raju College
Vishnupur::Bhimavaram
Workshop on Advanced Excel Functions
Department of Computer Science

Date: 16-12-2019   I BSc (MECs,MPCs & MSCs)

Attendance Sheet

S No	Roll No	Student Name	Section	Signature
1	193117137339	ARIGE DHANA LAKSHMI	MECs	A. Dhanalakshmi
2	193117137343	BODDUCHARLA VARA PRASAD	MECs	B. V. Prasad
3	193117137348	DARABANDHAM RAKESH	MECs	D. Rakesh
4	193117137353	DOMMETI GUNASHEKHAR	MECs	D. Gunashekhar
5	193117137357	GHANTASALA HEMASRI	MECs	G. Hemasri
6	193117137368	JAMI HARISHA JYOTHI	MECs	j. Jyothi
7	193117137374	KANIGALLA PUJITHA SRI NAGA SAI AKSHAYA	MECs	K. P. S. N. Akshaya
8	193117137379	KONDAMANCHILI L N V S S MADHU ASRITHA	MECs	K. Madhu Asritha
9	193117137386	KOPPISETTI SANJEEVI	MECs	K. Sanjeeve
10	193117137391	KOTHA VENKATA NAGA AKHIL	MECs	K. V Naga Akhil
11	193117137398	MERLA SANDHYA	MECs	M. Sandhya
12	193117137400	MOHAMMAD AARIF	MECs	Md. Aarif
13	193117137403	MUTYALA MOHAN RAJESH	MECs	M. Mohan Rajesh
14	193117137409	PACHIGOLLA SAI LAKSHMI	MECs	P. S. Lakshmi
15	193117137414	PATTAPAGALU RAMA KRISHNA KARTHIKEYA	MECs	P. Karthikeya
16	193117137420	PRAYAGA SFSHA SAI MADHUVANI	MECs	P. S. Madhuvani
17	193117137422	RAGANI SAI NAGA VENKATA KRISHNA	MECs	R. S. N. Venkata krisha
18	193117137427	SAMAYAMANTHULA RAMA SREEVALLI	MECs	S.R. Sreevalli
19	193117137431	SAVALLA RAGHU VENKATA GANA VAMSI KRISHNA	MECs	S. Vamsi Krishna

20	193117137436	TADAKALURI SHAMITHA	MECs	T. Shamitha
21	193117137439	THOTA ANUSHA	MECs	T. Anush
22	193117137443	VANKAYALA RAJESWARI MAHALAKSHMI	MECs	V. Laksh
23	193117137447	VELIVELA HEMATEJA	MECs	V. Hemateja
24	193117137449	YAGATI CHANDRA SEKHAR UMA MAHESH	MECs	Y. ch. S. Uma Mahesh
25	193117102051	BANDI ASHA JYOTHI	MPCs	B.A Jyothi
26	193117102056	BONDA NAGA VENKATA KANAKA VYSHNAVI	MPCs	B. Vyshnavi
27	193117102061	CHEKURI SUNIL VARMA	MPCs	Ch. Veera
28	193117102065	DAMARSINGH PREM KUMAR	MPCs	D. Kumar
29	193117102071	GOPISETTY KAVYA SRIJA	MPCs	G. K. Srija
30	193117102077	IRRINKI SRI VIJAYA	MPCs	I. Sri Vijaya
31	193117102082	KANDREGULA KUMAR	MPCs	K. Kumar
32	193117102086	KARRI MADHU SREE PARVATHI	MPCs	k.M.S. Parvathi
33	193117102094	KOVVURI DEVI SAI SURESH REDDY	MPCs	K. Suresh
34	193117102098	KURELLA SUPRIYA	MPCs	K. Supriya
35	193117102102	MALLULA RAVI CHARUN	MPCs	M. Charun
36	193117102112	NANGEDLA SURYA LAKSHMI	MPCs	N.S Lakshmi
37	193117102116	NUTHALAPATI LAKSHMI PHANI VISWESWARA RAO	MPCs	N. Visweswara
38	193117102129	PUNNANI SRI KRISHNA	MPCs	P.S. krishna
39	193117102135	SAMBRANI HARSHA	MPCs	S. Harsha
40	193117102142	SEETHALA JAYA SRI SANTHOSHI LAKSHMI	MPCs	S. Lakshmi
41	193117102150	THANGELLA JAYASRI SAI DURGA	MPCs	T. J Sai Durga
42	193117102156	VEDANTHAM SURYA TEJA	MPCs	V. Teja
43	193117102164	YAPATI BHARGAVI	MPCs	y.Bhargavi
44	193117109169	ANTERVEDIPALEM SAI TARUN	MSCs	Tarun

45	193117109175	BONTHU GEETHAREDDY	MSCs	
46	193117109182	DARAPUREDDY LAKSHMI PRASANNA	MSCs	D.L. Prasanna
47	193117109188	GUBBALA TEJA SATYA SRI	MSCs	Satyasri
48	193117109196	JALASUTHRAM RAMESH	MSCs	J. Ramesh
49	193117109208	KARRI HIMA TANUJA	MSCs	K. Hima
50	193117109218	KORADA DINESH KUMAR	MSCs	K. Dinesh
51	193117109229	MANE LAKSHMI SARANYA	MSCs	M. Saranya
52	193117109240	PENMETSA VENKATA SUNIL VARMA	MSCs	P.V.S. Varma.
53	193117109254	RAVURI JNANESWARI	MSCs	R. Jnaneswari
54	193117109265	TUMARADA RANI	MSCs	T. Rani
55	193117109273	VYKUNTAPU BINDHU MADHAVI	MSCs	V.B. Madhavi.

Date: 16th Dec '19.

Advanced Excel Functions
by Mr. Tjrinadh Ravi kumar
S.V.K.P & Dr. k. S. Raju Degree College.

Advanced Excel Functions   Date: 16th Dec '19.
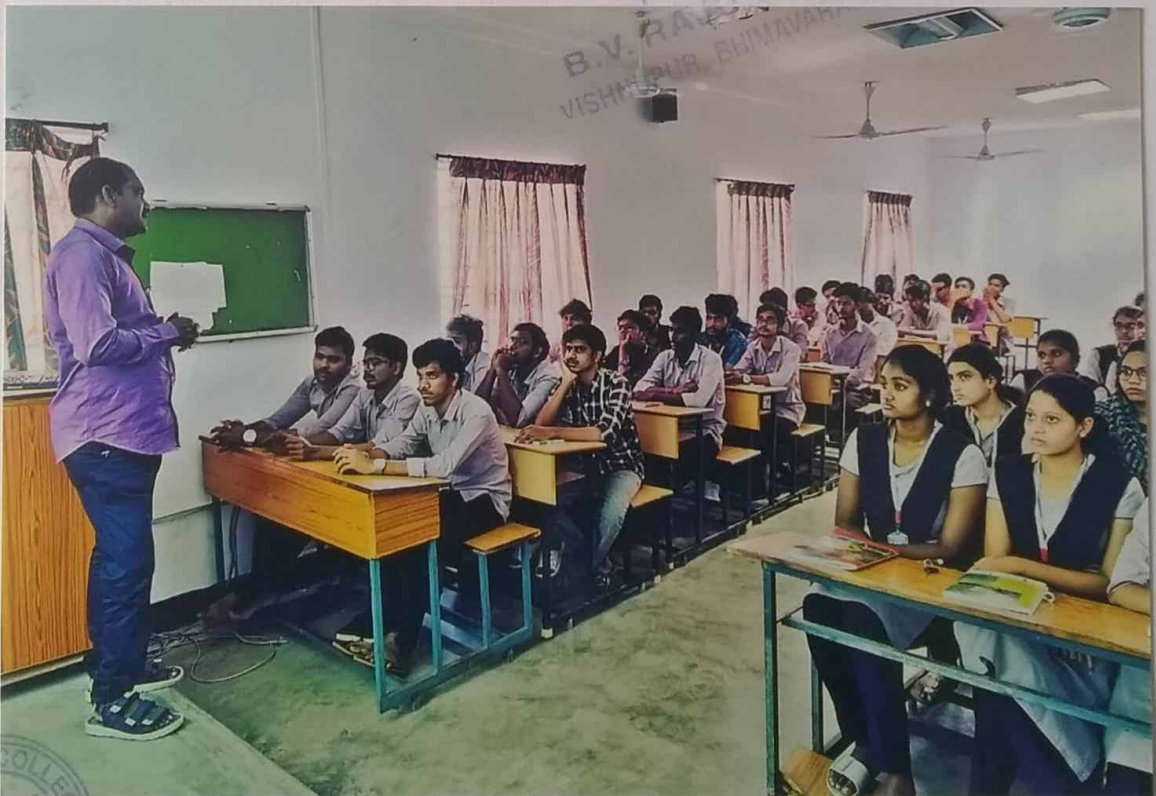by Mr. Trinadh Ravi kumar
S.V.K.P & Dr. K.S. Raju Degree college

PRINICIPAL
B.V. RAJU COLLEGE
VISHNUPUR, BHIMAVARAM 534 202

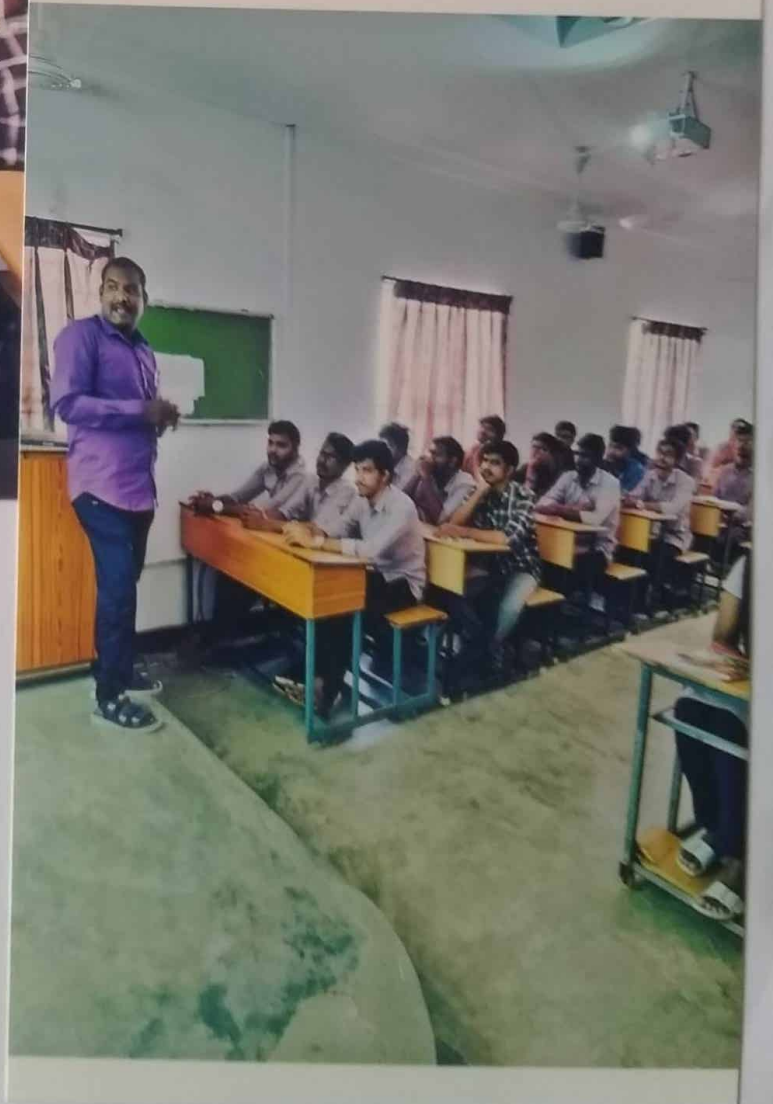## Advance Excel Functions

K Trinadh Ravi Kumar
HOD, Department of Computer Science
S V K P & Dr K S Raju Arts & Science College
Penugonda

Objectives: Using Excel functions
- SUM, MIN, MAX, AVERAGE, COUNT, COUNTA
- ROUND
- COUNTIF, SUMIF, AVERAGEIF

A Function is a predefined worksheet formula

The advantage of using a function:
- Saves time writing
- Simplifies complex calculations
- Faster execution
- Less chance of typographical errors
- Fewer characters in the formula bar

Example: instead of =C5+C6+C7+C8
use =SUM(C5:C8)

Functions take arguments and return a result

The general format of a function is -

=Functionname(arguments)

- **Arguments** – argument variables are used by the function to calculate the result. Arguments appear in a specific order.

- **Syntax** – specific format required to use a function its name and order of arguments

- **Result** – the value calculated by the function

- **Algorithm** – a step-by-step procedure for accomplishing some end task.

The SUM Function

- **Syntax: SUM(range) or SUM(num1, num2, ...)**
  Can type into cell, use AutoSum toolbar button
  function wizard   Σ ▾

- **Argument: Value or Range of cells to be summed**

- **Algorithm: Arithmetic sum of all values listed in the range argument**

Example: In the formula =SUM(B2:B8) * 3 Excel will add the values in cells B2 through B8 and then multiple the result by 3.

Arguments of a SUM function

Valid Range Arguments for a SUM function
- A1:A4 - Range along a column
- A1:D1 - Range along a row
- A1:D4 - A two-dimensional range (Block)
- A1, D3:D5, 7 - non-contiguous cells*

* not all range arguments of functions can be used with non-contiguous cells

Using functions

|	A	B	C	D	E	F	G	H
1	Grade Book							
2								
3	Total Possible points	Honors	Lab1 10	Lab2 20	MT 100	Final 200	Total 330	Percent
4								
5	Blue	H	9	15	88	186	298	90.3%
6	Jones		5		77	155	237	71.8%
7	Smith	H	10	18	91	190	309	93.6%
8	Grey		7	10	75	155	247	74.8%
9								
10	Highest Score		10	18	91	190	309	93.6%
11	Lowest Score		5	10	75	155	237	71.8%

What formula is written in cell G5 and copied down the column to determine the total points earned by the corresponding student? (grades.xls)

=SUM(C5:F5)

Function Wizard

- Function wizard: A short-cut to all the functions in excel (use *fx* toolbar button) that walks you through building a function

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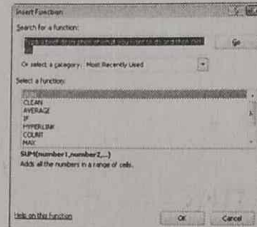
Common Functions- with only a range argument

SUM(number1,[number2],...)	Adds the numbers in a range of cells
AVERAGE(SUM(number1,[number2],)	Calculates the arithmetic mean of a list of values
MIN(SUM(number1,[number2],...)	Returns the smallest number of a range of values
MAX(SUM(number1,[number2],...)	Returns the largest number of a range of values
COUNT(value1,[value2],...)	Determines the number of cells in a range that contain numbers
COUNTA(value1, [value2],...)	Counts non-blank cells

Where number1, number2 are 1 to 255 numeric arguments. Arguments can either be numbers, ranged names or ranges of cell references which contain numbers.

How a function's algorithm can affect the resulting value

- How does the Average function algorithm treat blank cells?
- What value will result in cell A5 if it contains the formula =AVERAGE(A1:A4)?

	A
1	10
2	20
3	
4	30
5	=AVERAGE(A1:A4)

Blank cells are ignored → the resulting value is 20

How many Honor students are there?

	A	B	C	D
1	Grade Book			
2			Lab1	Lab2
3	Total Possible points	Honors	10	20
4	Blue	H	9	16
5	Jones		6	
6	Smith	H	10	18
7	Grey		7	10

=COUNT(B5:B8)?

The COUNT function ignores blank cells and text → the resulting value is 0

Use =COUNTA(B5:B8) → 2

If scores should only be reported as integers.. How can we fix this in Excel?

	A	B
1	Lab	Grade
2	1	1
3	2	12.5
4	3	6.75
5	4	8
6	5	2.3333
7	6	8.7

The Increase/Decrease decimal buttons do NOT change a value only how the value is displayed.

Use the ROUND function to change the precision of a value

Slide 1

How many people scored above 6 points on either lab?

Grade Book		Lab1	Lab2	MT
Total Possible points	Honors	10	20	100
Hua	H	9	15	98
Jones	R	5		77
Smith	H	10	18	91
Grey	R	7	10	75

=COUNTIF(C5:C8,D5:D8, ">6")**X**

=COUNTIF(C5:D8, ">6") √

Slide 2

The SUMIF Function sums the values in a range that meet a specific criteria

SUMIF(range, criteria, sum-range)

Range – Continuous range used to compare the criteria
Criteria – Comparison Criteria
Sum-Range - If criteria is met, the computer will sum the corresponding entry in this range
The syntax of the criteria is the same as the syntax of the COUNTIF function:
- a number such as 6
- text such as "Honor"
- a Boolean value such as "<2"
- a cell reference such as A1

Slide 3

Sumif Function

Write a formula in cell C9, which can be copied down the column, to summarize the number of courses being taken by students in this college

	A	B	C
			#Course
1	Student	College	Enrolled
2	Smith	BUS	3
3	Jones	ASC	2
4	Blue	BUS	2
5	Davis	ASC	3
6	Wolfe	ASC	4
7			
8	Total Courses by College		
9	ASC	9	
10	BUS	5	

=SUMIF(B$2:B$6,A9, C$2:C$6)

Slide 4

Use the AVERAGEIF function to average values that meet a specified criteria – average number of courses taken by students in each college

	A	B	C
			#Course
1	Student	College	Enrolled
2	Smith	BUS	3
		ASC	2
		BUS	2
	Davis	ASC	3
6	Wolfe	ASC	4
7			
8	Average # Course Taken		
9	ASC	3	
10	BUS	2.5	

=AVERAGEIF(B$2:B$6,A9, C$2:C$6)

AVERAGEIF(range, criteria, averagif-range) – works identically to the SUMIF function except it averages the specified range.

Slide 5

A little harder..calculate the average cum for students by college

	A	B	C	D	E	F	G
1	Graduating Senior Stats:						
2	Student	College	Freshman	Sophmore	Junior	Senior	Overall
3	Tom	BUS	2.1	3.2	3.4	3.5	3.05
4	Sara	HEC	3.8	3.8	3.2	3.9	3.68
5	Michael	SBS	2.85	3.1	3.3	3.2	3.11
6	Todd	ENG	4.0	4.0	4.0	4.0	4.00
7	Regina	BUS	3.9	3.7	3.2	3.8	3.65
8	Ming	BUS		2.7	2.6	1.9	2.40
9	Alexis	HEC	1.5	2.6	2.0	1.9	2.00
10							
11		Summary By College By Year					
12		College	Freshman	Sophmore	Junior	Senior	Overall
13		BUS	1.0	1.1	1.0	1.0	1.0
14		HEC	1.3	1.6	1.3	1.5	1.4
15		SBS	2.9	3.3	3.3	3.2	3.1

=AVERAGEIF($B$3:$B$9,$B13,C$3:C$9)
Is this equivalent to a sumif/countif?

Slide 6

Other Categories of Functions

- **Statistics:**
  - Mean, Median, Standard deviation
- **Financial:**
  - Present value, Future value
- **Logical:**
  - NOT, AND, OR
- **Trigonometric:**
  - COS, TAN,

Slide 1

The Round Function changes the precise value of a number, not just its display

Syntax: Round (number, num_digits)
– = Round (24.44,1) results in the value 24.4

- The ROUND function can be part of a larger formula:
  - What value results: =Round (B2,0)*10 if cell B2 contains the value 81.3? → **810**
  - How would your write a formula to round the average value in cells Cl:C10 to the nearest *ten*?

→ **ROUND(AVERAGE(C1:C10),-1)**

Slide 2

The num_digits argument

5285.38593

Formula	num_digits	
=ROUND(A1, 3)	3	5285.386
=ROUND(A1, 2)	2	5285.39
=ROUND(A1, 1)	1	5285.4
=ROUND(A1, 0)	0	5285
=ROUND(A1,-1)	-1	5290
=ROUND(A1,-2)	-2	5300
=ROUND(A1,-3)	-3	5000

- Positive num_digits round to the specified number of decimal places
- A zero results in a whole number
- Negative num_digits round values to tens, hundreds etc.

Slide 3

Notice the Σ SUM gives different results when adding rounded values

	A	B	C	D
1		Raw Data	Raw Data displayed as an Integer	Rounded data
2	data point 1	2.1	2	2
3	data point 2	3.1	3	3
4	data point 3	4.4	4	4
5	sum	9.6	10	9

The formula in cell C2 is =B2 – copied down
The formula in cell D2 is =Round(B2,0) – copied down
The formula in Cell B5 is =SUM(B2:B4) - copied across

Slide 4

Counting the number of honor students

How can we count the number of honor students if regular students have the letter R in the honor's column? Before we used a COUNTA and ignored blanks but counted text.

Slide 5

Use the COUNTIF Function

	A	B	C
1	Grade Book		
2			Lab1 L
3	Total Possible points	Honors	10
4			
5	Blus	H	9
6	Jones	R	5
7	Smith	H	10
8	Grey	R	7

The COUNTIF function counts the number of values that meet a specified criteria:

=COUNTIF(B5:B8, "H")

Slide 6

The COUNTIF Function counts the number of items in a range that meet a specific criteria.

COUNTIF (range*, criteria) –

Range - a *continuous* cell range

Criteria Syntax:

- A number *6* =COUNTIF(B2:B7,6)
- Text *"USA"* =COUNTIF(A1:A50,"USA")
- A cell reference *B2*   =COUNTIF(C3:C10,B2)
- A Boolean expression *">5"* =COUNTIF(A1:A10,">5")

* The comma tells the computer the next argument is the criteria – so you cannot list individual cells separated by a comma for the range

B V RAJU COLLEGE

VISHNUPUR::BHIMAVARAM

DEPARTMENT OF COMPUTER SCIENCE

EVENT NAME: Advanced excel function

DATE:

PARTICIPANT FEEDBACK FORM

Name of the Student : A.Lakshmi Prasanna

Register Number : 17 3117137 245

Course & Group : I Bsc - MECS

Contact Number : 9949981659

Email ID : Prasanna. alluri@gmail.com

Future events you are expecting :

How do you rate the event conducted: 1/2/3/4/5̌

Are you satisfied with event conduction: Yeš/No

Comments or Suggestions : Nothing

A.L.Prasanna
Signature of the student

B V RAJU COLLEGE

VISHNUPUR::BHIMAVARAM

DEPARTMENT OF COMPUTER SCIENCE

EVENT NAME: Advancedexcel function

DATE:

PARTICIPANT FEEDBACK FORM

Name of the Student   : B. R. Satya Sree

Register Number   : 17311713728 258

Course & Group   : I BSC—MECS

Contact Number   : 868872227

Email ID   : Satyasree. bandil 32 @ gmail. com

Future events you are expecting   :

How do you rate the event conducted: 1/2/3/4̌/5

Are you satisfied with event conduction: Yeš/No

Comments or Suggestions   : Nothing

B. Satya

Signature of the student

B V RAJU COLLEGE

VISHNUPUR::BHIMAVARAM

DEPARTMENT OF COMPUTER SCIENCE

EVENT NAME: Advanced excel function

DATE:

PARTICIPANT FEEDBACK FORM

Name of the Student   : GALIDEVARA JAGADESH

Register Number   : 17311713776

Course & Group   : I BS-c -MECS

Contact Number   : 944064669

Email ID   : jagadesh-919@gmail.com.

Future events you are expecting :

How do you rate the event conducted: 1/2/3/4/5 ✓

Are you satisfied with event conduction: Yes ✓/No

Comments or Suggestions   : nothing

G. jagadesh
Signature of the student

B V RAJU COLLEGE

VISHNUPUR::BHIMAVARAM

DEPARTMENT OF COMPUTER SCIENCE

EVENT NAME: Advanced excel Function

DATE:

PARTICIPANT FEEDBACK FORM

Name of the Student : KOTHA RAMYA SRI

Register Number : 173117102086

Course & Group : I Bsc - MECS

Contact Number : 9949226152

Email ID : ramyasri.kotha@gmail.com

Future events you are expecting :

How do you rate the event conducted: 1/2/3/4̌/5

Are you satisfied with event conduction: Yeš/No

Comments or Suggestions : Nothing

K. Ramya Sri
Signature of the student

B V RAJU COLLEGE

VISHNUPUR::BHIMAVARAM

DEPARTMENT OF COMPUTER SCIENCE

EVENT NAME: Advanced excel function

DATE:

PARTICIPANT FEEDBACK FORM

Name of the Student : KODE PRAMODH

Register Number : 173117137292

Course & Group : 1 BS C - ME CS

Contact Number : 9948566678

Email ID : kodepramodhkode@gmail.com

Future events you are expecting :

How do you rate the event conducted: 1/2/3/4̌/5

Are you satisfied with event conduction: Yěs/No

Comments or Suggestions : nothing

K. pramodh

Signature of the student