CPSC203 – Introduction to Problem Solving and Using Application Software

Fall 2009

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Introduction

- Notes on the quiz #1
- Analysis and forecasting
- Quick review of spreadsheet skills

Quiz #1

- Quiz #1 this Wednesday, 30 September.
- We'll start at 9:00 and leave the lab at 9:50.
- You'll be given a handout which you have to put your name on and return to me before you leave the lab.
- The quiz file will be submitted through the Blackboard.
- Don't forget to SUBMIT not SAVE the file before you leave the lab.
- If a student wants to take the quiz at a different time, s/he should contact the **instructor** for approval.
- Students need to have their UCIDs shown beside them during the exam.

Dos

- During the quiz, students are allowed to:
  - Bring any course notes that they need, including printed wiki material.
  - Use Microsoft Excel Help.

Do Nots

- During the quiz, students are NOT allowed to:
  - Talk to each other.
  - Use their cell phones.
  - Take the exam sheet with them and leave the lab.
  - Open an internet browser for any reason (other than submitting through the blackboard).
  - Look at each others' monitors.
  - Access the course wiki content online.
  - Take the exam on their laptops.

Analysis and Forecasting

- The compound interest is the amount of money earned on a deposit during a period of time. It can be calculated using the following formula:

$$P= C (1 + r/n)^{nt}$$

P = future value

C = initial deposit

r = interest rate (expressed as a fraction e.g. 0.06 = 6%)

n = # of times per year interest is compounded

t = number of years invested.

Spreadsheets Review (1)

- Given the spreadsheet file below:

	A	B	C	D	E	F	G	H	I	J	K
1	Faculty	2007 Budget	2008 Budget	Growth	Growth %	Total %	2009 Forcast	Trend1	Trend2		Total 2008 Budget
2	Science	128	132								Average 2008 Budget
3	Engineering	197	205								Minimum Budget
4	Arts	73	99								Maximum Budget
5	Medicine	143	155								Standard Deviation of 2008 Budget
6	Law	65	65								
7	Humanities	74	84								
8	Business	136	165								

- Compute the following:

1. “Total 2008 Budget”, “Average 2008 Budget”, “Minimum 2008 Budget”, “Maximum 2008 Budget”, and “Standard Deviation of 2008 Budget”. Format cells as Number.
2. Net “Growth” = “2008 Budget” – “2007 Budget”. Format cells in this column as Number.

Spreadsheets Review (2)

3. “Growth %” = “Growth” / “2007 Budget”. Format cells in this column as Percentage.
4. “Total %” = “2008 Budget” / “Total 2008 Budget”. Format cells in this column as Percentage.
5. “2009 Forecast” = “2008 Budget” * (1 + “Growth %”). Format cells in this column as Number.
6. “Trend1” of growth using nested IF function:
   If “Growth %” is less than or equal to 5% then trend is “Slow”,
   Otherwise if “Growth %” is less than or equal to 10% then trend is “Normal”,
   Otherwise trend is “Fast”. Format cells in this column as Text.

Spreadsheets Review (3)

7. “Trend2” using the same logic in step 6 using lookup table this time. Format cells in this column as Text.
8. Create a pivot table where rows are from “Faculty” and columns are from “Trend1” and the data is the Maximum of “Growth %”.
9. Create a column chart where the X-axis is “Faculty” and Y-axis is “Growth %”. Give your chart a title, and axis titles. Change the range of values for Y-axis to 0.0 to 1.0.