

**Q1:** Write a program le1q1.c that:

1. Prompts the user to enter the initial balance in S.R.
2. Calculates the total amount after 1 year, 2 years, 3 years, 4 years and 5 years taking into account the compound interest rate value: 1%
3. Using C loop statements, repeats the calculations for rate values: 2%, 3% and 4%.
4. Prints the total combination in a tabular format as shown in the sample run below.

Note: Compound interest is calculated on the total of the initial principal and the accumulated interest of previous periods of a deposit

Example: if the initial balance is 100 and the interest rate is 10%, after the 1<sup>st</sup> year the balance will be  $100 + 100 * 10\% = 110$ , after the second year the balance is  $110 + 110 * 10\% = 121$

Sample run:

>Enter the initial balance: 1000						
Rate	Year 1	Year 2	Year 3	Year 4	Year 5	
1%	S.R. 1010.00	S.R. 1020.10	S.R. 1030.30	S.R. 1040.60	S.R. 1051.01	
2%	S.R. 1020.00	S.R. 1040.40	S.R. 1061.21	S.R. 1082.43	S.R. 1104.08	
3%	S.R. 1030.00	S.R. 1060.90	S.R. 1092.73	S.R. 1125.51	S.R. 1159.27	
4%	S.R. 1040.00	S.R. 1081.60	S.R. 1124.86	S.R. 1169.86	S.R. 1216.65	

**Q2:** Write a program le1q2.c that:

1. Prompts the user to enter a sentence
2. Finds and prints the longest word in the sentence
3. Asks the user if he/she wants to enter another sentence. If the user enters 'y' the program repeats until the user enters 'n'.

Note1: words are separated with single space or tab characters.

Note2: Assume 1000 letters is the maximum length of the sentence.

Note3: If two or more words found to be the longest, print the one that occurs first in the sentence.

Sample run:

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>Please enter a sentence:
Many years later as he faced the firing squad Colonel Aureliano
Buendía was to remember that distant afternoon when his father
took him to discover ice
The longest word: Aureliano
>Do you want to analyse another sentence (y/n):y
>Please enter a sentence:
It was the best of times it was the worst of times it was the age
of wisdom it was the age of foolishness it was the epoch of belief
it was the epoch of incredulity it was the season of Light it was
the season of Darkness it was the spring of hope it was the winter
of despair
The longest word: foolishness
>Do you want to analyse another sentence (y/n):n
>Good bye
```