

***The absolut most important exercise:******Modularization with Function modules:***

Create a function group for a financial Calculator with the following function modules:

Modul 1: Payment each term

Calculate the 'payment each term' for a loan:  $pmt = (L * i) / ((1 - (1 + i)^{-n}))$  where L = amount, i = interest pr. term and n = number of terms.

Modul 2: Calculate present value.

Calculate the present value:  $PV = FV(1 + i)^{-n}$  where PV = present value, FV = future value, i = interest pr. term and n = number of terms.

Modul 3: Calculate future value.

Calculate the future value:  $FV = PV(1 + i)^n$  where PV = present value, FV = future value, i = interest pr. term and n = number of terms.

***Executable program:***

Create an executable where you

- Read values from the screen (parameters)
- Exporting data to the function module
- Importing the data from the function module
- Write the result of the calculation to the screen

***Modularization with subroutine***

In this exercise you have to write a program with subroutines.

You should create an internal table:

- Use a subroutine to populate the internal table.
- Use a subroutine to calculate the age.
- Use a subroutine to print the result to the screen.

Internal table:

In this exercise, you have to make an internal table with the following structure:

Name	Sex	Birthday	Age
Peter	M	10-10-1988	
Trine	F	20-08-1993	
Soren	M	17-12-1924	

First you have to declare an internal table, and then populate the tabel, and at last sort and write it to the screen.

Modify:

In this exercise you have to copy z\_opg\_1 to z\_opg\_2, and then calculate the age in the internal table.

### ***Modularization with Function modules***

In this exercise you have to write a program with function modules (z\_opg\_4).

You should create an intern table, but now you should used:

- Use a function module to populate the internal table.
- Use a function module to calculate the age.
- Use a function module to print the result to the screen.

### ***Financial calculator***

In this exercise you have to make a financial calculator.

1. create a function group (z\_fincalc) and two function modules:
  - a. (z\_pmt) where you calculate a payment

### ***Modularization with include programs***

In this exercise you have to write a program with source code modularization (z\_opg\_5).

You should create an intern table like the intern table in exercise 4.1, but now you should used:

- Use a include program to populate the internal table.
- Use a include program to calculate the age.
- Use a include program to print the result to the screen.

<https://www.guru99.com/abap-tutorial.html>

[https://www.tutorialspoint.com/sap/sap\\_programming\\_language.htm](https://www.tutorialspoint.com/sap/sap_programming_language.htm)