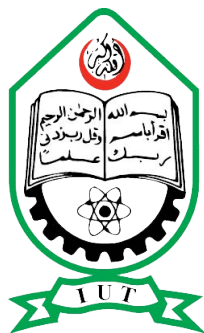# DBMS II LAB 05

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December 28, 2021

Note: Any kind of plagiarism is going to be severely penalized.

Additional Note: For reference to the built-in functions, visit:

`https://www.techonthenet.com/oracle/functions/index.php`

TASK DESCRIPTION

Consider the following entities:

```
1. AccountProperties < ID (pk), Name, iRATE (interest rate), GP (grace
   period) >
   GP=1 for daily (i.e. less than 1 month)
   GP=2 for monthly (i.e. more than or equal to 1, less than 4 months)
   GP=3 for quarterly (i.e. more than or equal to 4, less than 6 months)
   GP=4 for biyearly (i.e. more than or equal to 6, less than 12 months)
   GP=5 for yearly (i.e. more than or equal to 1 year)
2. Accounts < ID (pk), Name, AccCode (fk ref to AccountsProperties),
   Balance, LastDateInterest (date on which last interest was given) >
3. ProfitAmounts <AccNo, PrincipalAmount, ProfitAmount, dt (date of
   transaction)>
```

Tasks

1. Write a function to calculate the profit of each account based on irate, amount and duration. Remember, the duration could be in number of Days or Months or Years. Your program should handle it smoothly.

2. Write a procedure to update all accounts current balance (i.e. profit will be calculated and added if it satisfies conditions). Use the cursor for loop for this problem. After calculating the profit amount, the procedure should add that amount as a record inside the *ProfitAmounts* table. (You will need to use cursor for this part as well.)

Example data

ID	Name	iRATE (in percentage)	GP
1	Savings1	0.08	3
2	Savings2	0.09	4
3	Savings3	0.04	5
4	Salary1	0.05	1
5	Salary2	0.06	2
6	Current1	0.02	4
7	Current2	0.03	5

Table 1: Sample AccountProperties Table

ID	Name	AccCode	Balance	LastDateInterest
1	John	5	20000	28-11-2021
2	Smith	1	40000	02-08-2021
3	Black	6	35000	23-06-2021
4	Margot	4	60000	20-12-2021
5	Alex	3	80000	15-11-2020

Table 2: Sample Accounts Table