



CSIS05I

Database Systems II

Lab (10)

[SQL Functions, Database Security and Jobs - Solutions](#)

Exercise

1. *Create a function named 'average' that calculates the average of two numbers taken from the user as an input. Display the output in float, under the alias of Average Point.*

```
create function average (@parameter1 float, @parameter2 float)
returns float
as
begin
declare @average float
select @average = (@parameter1 + @parameter2) / 2
return @average
end

select dbo.average(7,10) As AveragePoint;
```

2. *Grant multiple Privileges to the users on the Product table.*

```
GRANT SELECT, INSERT, DELETE, UPDATE ON Product TO public;
```

3. *Grant a privilege to public on the 'average' function.*

```
GRANT execute ON dbo.average TO public;
```

4. *Revoke Select, Insert, Delete and update on table Customer from Public.*

```
REVOKE SELECT, INSERT, DELETE, UPDATE ON Customer FROM Public;
```

5. *Create a Job that schedule a function that retrieves the minimum quantity of a product, schedule this job to run recurrently on daily basis.*

SQL Command:

```
CREATE FUNCTION Get_MinimumQuantity()
RETURNS int
AS
BEGIN

    Declare @Min_Quantity int

    select @Min_Quantity = MIN (Quantity)
    From Order_Details

    RETURN @Min_Quantity

END
```

Job Step Properties - FunctionJob

Select a page: General, Advanced

Step name: FunctionJob

Type: Transact-SQL script (T-SQL)

Run as: [Empty]

Database: storeLab10

Command:

```
CREATE FUNCTION Get_Maximum_Quantity()
RETURNS int
AS
BEGIN
    Declare @Max_Quantity int
    select @Max_Quantity = MIN (Quantity)
    From Order_Details
    RETURN @Max_Quantity
END
```

Buttons: Open..., Select All, Copy, Paste, Parse

Connection: Server: DESKTOP-QA7OVAA, Connection: DESKTOP-QA7OVAA\vrkh2, View connection properties

Progress: Ready

Buttons: Previous, Next, OK, Cancel

New Job Schedule

Name: Schedule

Schedule type: Recurring, Enabled

One-time occurrence: Date: 12/18/2021, Time: 4:52:15 AM

Frequency: Occurs: Daily, Recurs every: 1 day(s)

Daily frequency: Occurs once at: 12:00:00 AM, Occurs every: 1 hour(s), Starting at: 12:00:00 AM, Ending at: 11:59:59 PM

Duration: Start date: 12/18/2021, End date: 12/18/2021, No end date: Selected

Summary: Description: Occurs every day at 12:00:00 AM. Schedule will be used starting on 12/18/2021.

Buttons: OK, Cancel, Help

Testing the Function:

```
SELECT dbo.Get_MinimumQuantity() AS 'Minimum Quantity'
```

| Results | | Messages | |
|------------------|---|----------|--|
| Minimum Quantity | | | |
| 1 | 5 | | |