

# **LAB REPORT # 04**



**DEPARTMENT OF SOFTWARE ENGINEERING**

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SECTION#A

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**Subject: DATABASE MANAGEMENT SYSTEM**

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## LAB REPORT # 04

### Using Single-Row Character Functions to Customize Output

- To describe various types of functions available in SQL
- To use character, number, and date functions in SELECT statements

#### • QUERY TO CREATE A TABLE

```
use ilyas_lab_04;
```

```
create table employe_Detail(
```

```
    employ_id int primary key auto_increment,
```

```
    firstName varchar(45) not null,
```

```
    lastName varchar(45) not null,
```

```
    salary int,
```

```
    job_id varchar(45) not null
```

```
);
```

```
insert into employe_Detail(firstName,lastName,salary,job_id)
```

```
values
```

```
('arham','khan',40000,'mag-4'),
```

```
('Ilyas','Ahmad',35000,'mag-5'),
```

```
('Nouman','shafique',50000,'IT-2'),
```

```
('Abdullah','kamal',35000,'Uclerk-45'),
```

```
('hasir','Ali',45000,'assistant-12'),
```

```
('zubair','sheikh',42000,'assitant-21'),
```

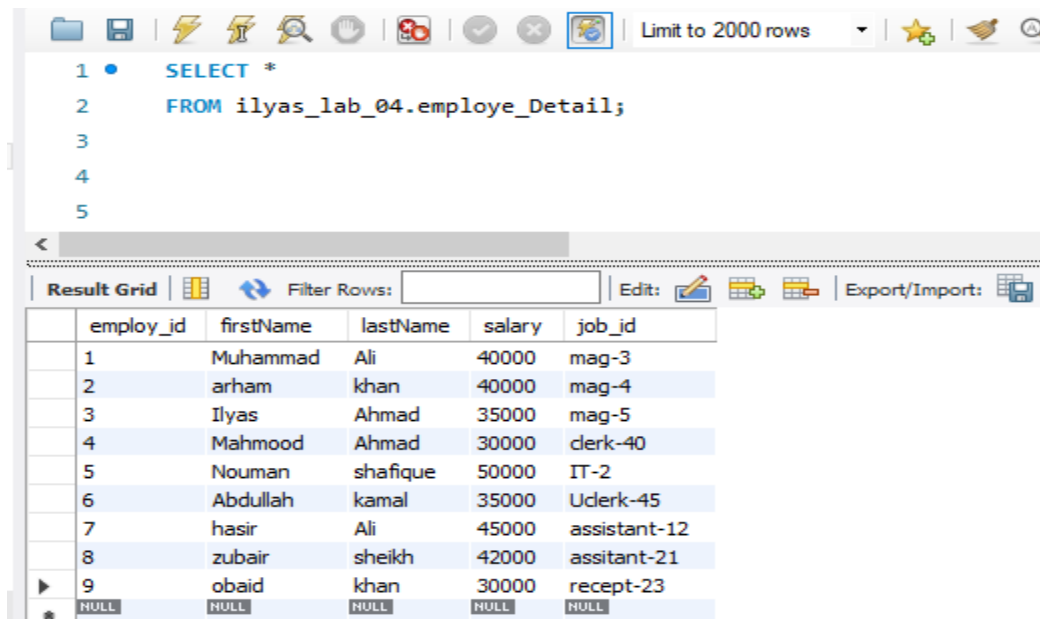
```
('obaid','khan',30000,'recept-23'),
```

```
('asad','ejaz',32000,'clerk-23');
```

SELECT \*

FROM ilyas\_lab\_04.employe\_Detail;

- **VIEW OF TABLE**



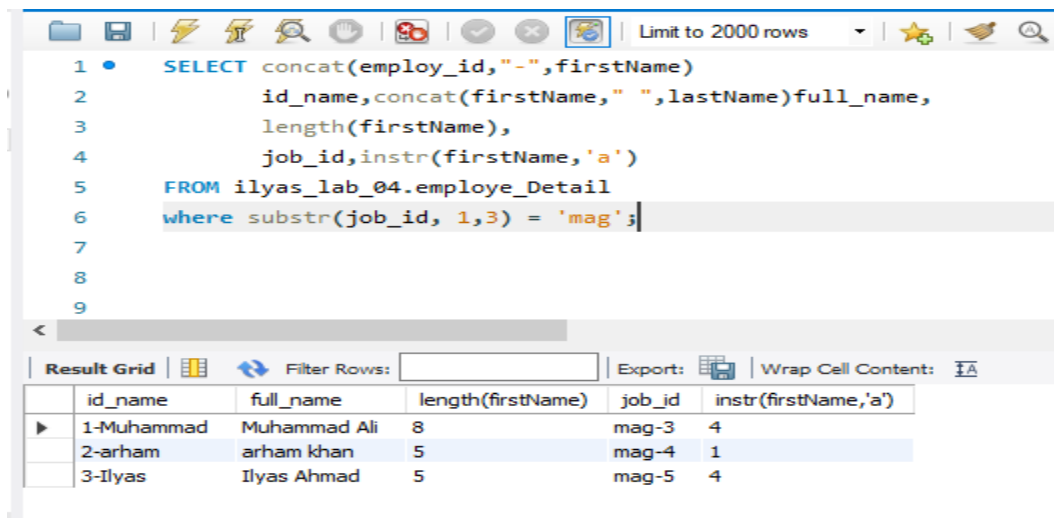
The screenshot shows a database query tool interface. At the top, there is a toolbar with various icons for file operations, execution, and navigation. Below the toolbar, a SQL query is entered in a text area:

```
1 • SELECT *
2 FROM ilyas_lab_04.employe_Detail;
3
4
5
```

Below the query editor, there is a section for the query results. It includes a "Result Grid" tab, a "Filter Rows" input field, and buttons for "Edit" and "Export/Import". The results are displayed in a table with the following columns: employ\_id, firstName, lastName, salary, and job\_id.

	employ_id	firstName	lastName	salary	job_id
1	1	Muhammad	Ali	40000	mag-3
2	2	arham	khan	40000	mag-4
3	3	Ilyas	Ahmad	35000	mag-5
4	4	Mahmood	Ahmad	30000	clerk-40
5	5	Nouman	shafique	50000	IT-2
6	6	Abdullah	kamal	35000	Uderk-45
7	7	hasir	Ali	45000	assistant-12
8	8	zubair	sheikh	42000	assitant-21
9	9	obaid	khan	30000	recept-23
*	NULL	NULL	NULL	NULL	NULL

- Character manipulation function



The screenshot shows a SQL IDE with a query editor and a result grid. The query is as follows:

```

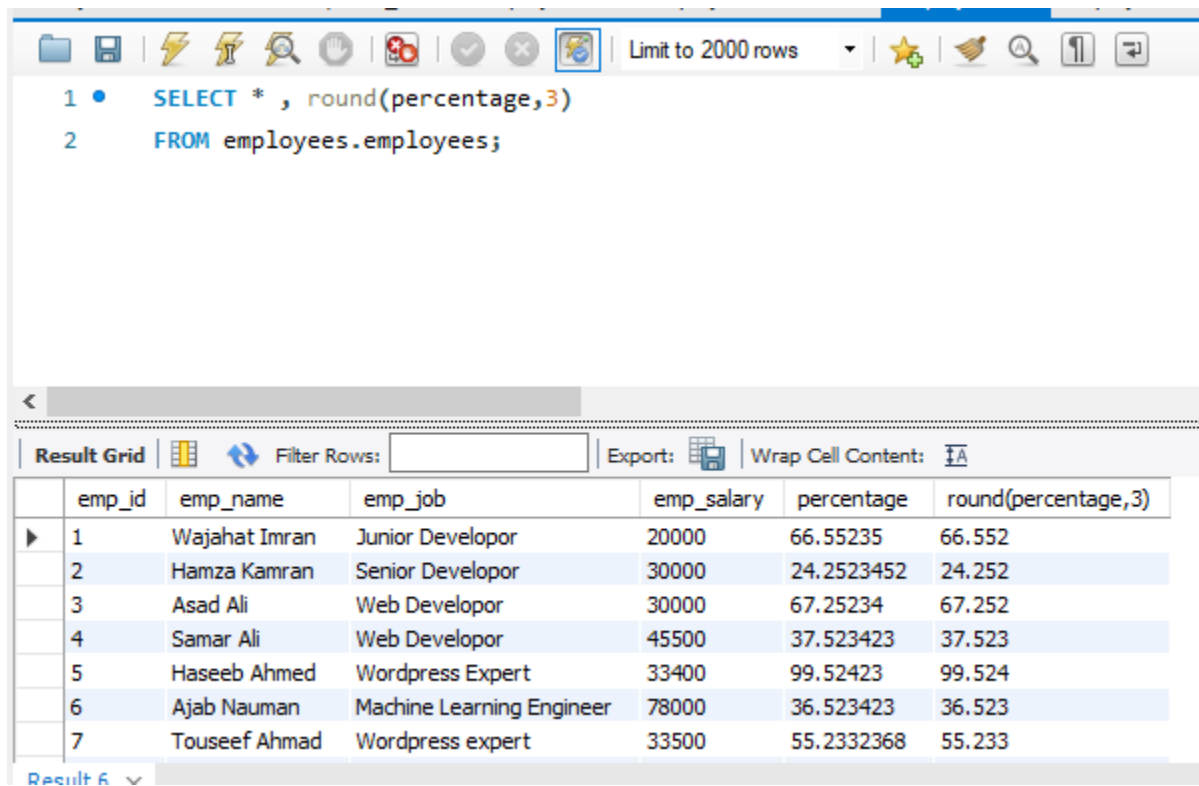
1 • SELECT concat(employ_id,"-",firstName)
2       id_name,concat(firstName," ",lastName)full_name,
3       length(firstName),
4       job_id,instr(firstName,'a')
5 FROM ilyas_lab_04.employe_Detail
6 where substr(job_id, 1,3) = 'mag';
7
8
9

```

The result grid displays the following data:

	id_name	full_name	length(firstName)	job_id	instr(firstName,'a')
▶	1-Muhammad	Muhammad Ali	8	mag-3	4
	2-arham	arham khan	5	mag-4	1
	3-Ilyas	Ilyas Ahmad	5	mag-5	4

- Round function



The screenshot shows a SQL IDE with a query editor and a result grid. The query is as follows:

```

1 • SELECT * , round(percentage,3)
2 FROM employees.employees;

```

The result grid displays the following data:

	emp_id	emp_name	emp_job	emp_salary	percentage	round(percentage,3)
▶	1	Wajahat Imran	Junior Developor	20000	66.55235	66.552
	2	Hamza Kamran	Senior Developor	30000	24.2523452	24.252
	3	Asad Ali	Web Developor	30000	67.25234	67.252
	4	Samar Ali	Web Developor	45500	37.523423	37.523
	5	Haseeb Ahmed	Wordpress Expert	33400	99.52423	99.524
	6	Ajab Nauman	Machine Learning Engineer	78000	36.523423	36.523
	7	Touseef Ahmad	Wordpress expert	33500	55.2332368	55.233

- Truncate function

```
1 • SELECT * , truncate(percentage,2)
2 FROM employees.employees;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [IA](#)

	emp_id	emp_name	emp_job	emp_salary	percentage	truncate(percentage,2)
▶	1	Wajahat Imran	Junior Developor	20000	66.55235	66.55
	2	Hamza Kamran	Senior Developor	30000	24.2523452	24.25
	3	Asad Ali	Web Developor	30000	67.25234	67.25
	4	Samar Ali	Web Developor	45500	37.523423	37.52
	5	Haseeb Ahmed	Wordpress Expert	33400	99.52423	99.52
	6	Ajab Nauman	Machine Learning Engineer	78000	36.523423	36.52
	7	Touseef Ahmad	Wordpress expert	33500	55.2332368	55.23

Result 7 ×

- Mod function

```
1 • SELECT * , mod(percentage,100)
2 FROM employees.employees;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [IA](#)

	emp_id	emp_name	emp_job	emp_salary	percentage	mod(percentage,100)
▶	1	Wajahat Imran	Junior Developor	20000	66.55235	66.55235
	2	Hamza Kamran	Senior Developor	30000	24.2523452	24.2523452
	3	Asad Ali	Web Developor	30000	67.25234	67.25234
	4	Samar Ali	Web Developor	45500	37.523423	37.523423
	5	Haseeb Ahmed	Wordpress Expert	33400	99.52423	99.52423
	6	Ajab Nauman	Machine Learning Engineer	78000	36.523423	36.523423
	7	Touseef Ahmad	Wordpress expert	33500	55.2332368	55.2332368

Result 9 ×

- Left PADDING function

Limit to 2000 rows

```

1 • SELECT * ,LPAD(emp_id,5,'*')
2   FROM employees.employees;

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [IA](#)

	emp_id	emp_name	emp_job	emp_salary	percentage	LPAD(emp_id,5,'*')
▶	1	Wajahat Imran	Junior Developor	20000	66.55235	*****1
	2	Hamza Kamran	Senior Developor	30000	24.2523452	*****2
	3	Asad Ali	Web Developor	30000	67.25234	*****3
	4	Samar Ali	Web Developor	45500	37.523423	*****4
	5	Haseeb Ahmed	Wordpress Expert	33400	99.52423	*****5
	6	Ajab Nauman	Machine Learning Engineer	78000	36.523423	*****6
	7	Touseef Ahmad	Wordpress expert	33500	55.2332368	*****7

- Right PADDING function

```

1 • SELECT * ,RPAD(emp_id,5,'*')
2   FROM employees.employees;



```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [IA](#)

	emp_id	emp_name	emp_job	emp_salary	percentage	RPAD(emp_id,5,'*')
▶	1	Wajahat Imran	Junior Developor	20000	66.55235	1*****
	2	Hamza Kamran	Senior Developor	30000	24.2523452	2*****
	3	Asad Ali	Web Developor	30000	67.25234	3*****
	4	Samar Ali	Web Developor	45500	37.523423	4*****
	5	Haseeb Ahmed	Wordpress Expert	33400	99.52423	5*****
	6	Ajab Nauman	Machine Learning Engineer	78000	36.523423	6*****
	7	Touseef Ahmad	Wordpress expert	33500	55.2332368	7*****

- Trim function

```
1 • SELECT *,trim('J' from 'Junior')
2 FROM employees.employees;
```

Result Grid						
Filter Rows: <input type="text"/>						
Export:  Wrap Cell Content: 						
	emp_id	emp_name	emp_job	emp_salary	percentage	trim('J' from 'Junior')
▶	1	Wajahat Imran	Junior Developor	20000	66.55235	unior
	2	Hamza Kamran	Senior Developor	30000	24.2523452	unior
	3	Asad Ali	Web Developor	30000	67.25234	unior
	4	Samar Ali	Web Developor	45500	37.523423	unior
	5	Haseeb Ahmed	Wordpress Expert	33400	99.52423	unior
	6	Ajab Nauman	Machine Learning Engineer	78000	36.523423	unior
	7	Tamim Shahid	Web Developor	22500	55.2222222	unior