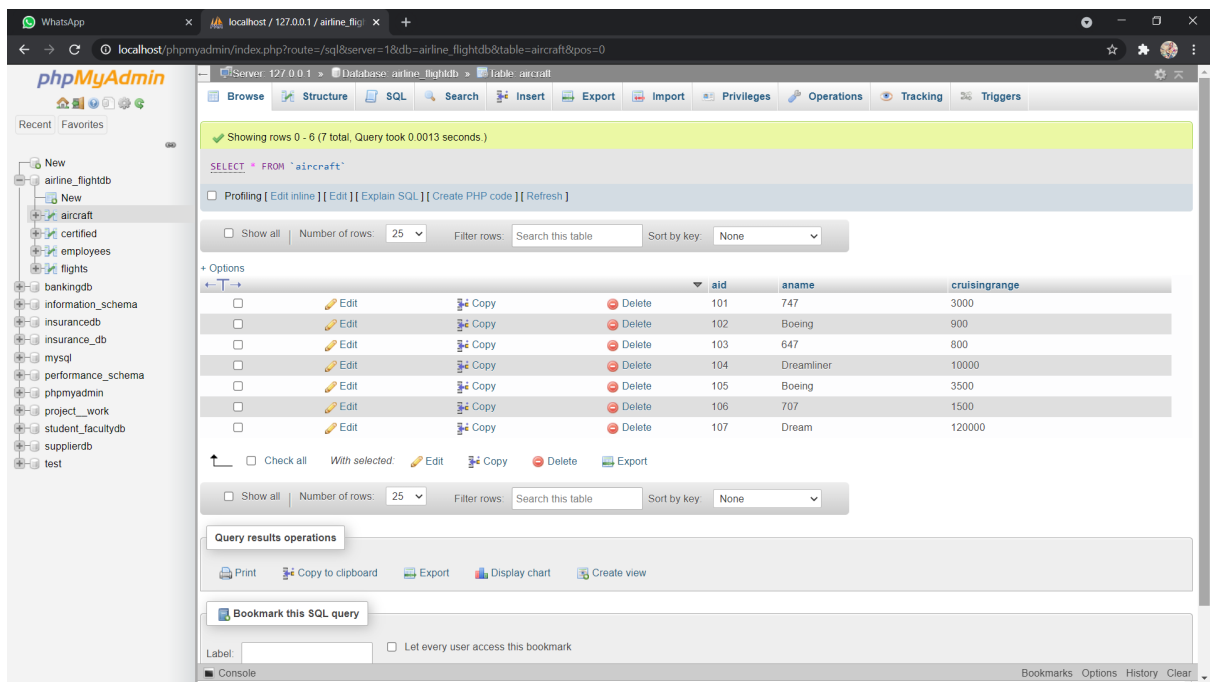


# Lab Program – 5

## Airline database

### Tables

#### Aircraft



The screenshot shows the phpMyAdmin interface for the 'airline\_flightdb' database. The 'aircraft' table is selected, and the query results are displayed. The table has 7 rows of data. The columns are 'aid', 'aname', and 'cruisingrange'.

	aid	aname	cruisingrange
<input type="checkbox"/>	101	747	3000
<input type="checkbox"/>	102	Boeing	900
<input type="checkbox"/>	103	647	800
<input type="checkbox"/>	104	Dreamliner	10000
<input type="checkbox"/>	105	Boeing	3500
<input type="checkbox"/>	106	707	1500
<input type="checkbox"/>	107	Dream	120000

#### Certified

WhatsApp localhost / 127.0.0.1 / airline\_flig... +

localhost/phpmyadmin/index.php?route=/sql&server=1&db=airline\_flightdb&table=certified&pos=0

phpMyAdmin

Recent Favorites

- New
- airline\_flightdb
  - New
  - aircraft
  - certified
  - employees
  - flights
- bankingdb
- information\_schema
- insurancedb
- insurance\_db
- mysql
- performance\_schema
- phpmyadmin
- project\_work
- student\_facultydb
- supplierdb
- test

Showing rows 0 - 13 (14 total, Query took 0.0011 seconds)

SELECT \* FROM `certified`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

					eid	aid
<input type="checkbox"/>	Edit	Copy	Delete		701	101
<input type="checkbox"/>	Edit	Copy	Delete		701	102
<input type="checkbox"/>	Edit	Copy	Delete		701	105
<input type="checkbox"/>	Edit	Copy	Delete		701	106
<input type="checkbox"/>	Edit	Copy	Delete		702	101
<input type="checkbox"/>	Edit	Copy	Delete		702	104
<input type="checkbox"/>	Edit	Copy	Delete		702	107
<input type="checkbox"/>	Edit	Copy	Delete		703	104
<input type="checkbox"/>	Edit	Copy	Delete		703	105
<input type="checkbox"/>	Edit	Copy	Delete		703	107
<input type="checkbox"/>	Edit	Copy	Delete		704	104
<input type="checkbox"/>	Edit	Copy	Delete		704	105
<input type="checkbox"/>	Edit	Copy	Delete		704	107
<input type="checkbox"/>	Edit	Copy	Delete		705	103

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Console Bookmarks Options History Clear

## Employees

WhatsApp localhost / 127.0.0.1 / airline\_flig... +

localhost/phpmyadmin/index.php?route=/sql&server=1&db=airline\_flightdb&table=employees&pos=0

phpMyAdmin

Recent Favorites

- New
- airline\_flightdb
  - New
  - aircraft
  - certified
  - employees
  - flights
- bankingdb
- information\_schema
- insurancedb
- insurance\_db
- mysql
- performance\_schema
- phpmyadmin
- project\_work
- student\_facultydb
- supplierdb
- test

Showing rows 0 - 6 (7 total, Query took 0.0016 seconds)

SELECT \* FROM `employees`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

					eid	ename	salary
<input type="checkbox"/>	Edit	Copy	Delete		701	A	50000
<input type="checkbox"/>	Edit	Copy	Delete		702	B	100000
<input type="checkbox"/>	Edit	Copy	Delete		703	C	150000
<input type="checkbox"/>	Edit	Copy	Delete		704	D	90000
<input type="checkbox"/>	Edit	Copy	Delete		705	E	40000
<input type="checkbox"/>	Edit	Copy	Delete		706	F	60000
<input type="checkbox"/>	Edit	Copy	Delete		707	G	90000

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label:  ☐ Let every user access this bookmark

Console Bookmarks Options History Clear

## Flights

Showing rows 0 - 5 (6 total, Query took 0.0013 seconds)

```
SELECT * FROM `flights`
```

	fno	departure	arrival	distance	departs	arrives	price
<input type="checkbox"/>	101	Bangalore	Delhi	2500	2005-05-13 07:15:31	2005-05-13 17:15:31	5000
<input type="checkbox"/>	102	Bangalore	Lucknow	3000	2005-05-13 07:15:31	2005-05-13 11:15:31	6000
<input type="checkbox"/>	103	Lucknow	Delhi	500	2005-05-13 12:15:31	2005-05-13 17:15:31	3000
<input type="checkbox"/>	104	Bangalore	Frankfurt	8500	2005-05-13 07:15:31	2005-05-13 23:15:31	75000
<input type="checkbox"/>	105	Kolkata	Delhi	3400	2005-05-13 07:15:31	2005-05-13 09:15:31	7000
<input type="checkbox"/>	107	Bangalore	Frankfurt	8000	2005-05-13 07:15:31	2005-05-13 22:15:31	60000

1. Find the names of aircraft such that all pilots certified to operate them have salaries more than Rs.80,000.

Showing rows 0 - 3 (4 total, Query took 0.0151 seconds)

```
select distinct a.name from aircraft a, certified c, employees e where a.aid=c.aid and c.eid=e.eid and e.salary > 80000
```

	aname
<input type="checkbox"/>	747
<input type="checkbox"/>	Dreamliner
<input type="checkbox"/>	Boeing
<input type="checkbox"/>	Dream

- For each pilot who is certified for more than three aircrafts, find the eid and the maximum cruising range of the aircraft for which she or he is certified.

The screenshot shows the phpMyAdmin interface with the 'certified' table selected. The SQL query executed is:

```
select c.eid, max(a.cruisingrange) from certified c inner join aircraft a on c.aid=a.aid GROUP BY c.eid having count(*)>3
```

The result shows one row:

eid	max(a.cruisingrange)
701	3500

- Find the names of pilot's whose salary is less than the price of the cheapest route from Bengaluru to Frankfurt.

The screenshot shows the phpMyAdmin interface with the 'employees' table selected. The SQL query executed is:

```
select e.ename from employees e where e.salary < (select min(f.price) FROM flights f where f.departure='Bengaluru' and f.arrival='Frankfurt' )
```

The result shows two rows:

ename
A
E

- For all aircraft with cruising range over 1000 Kms, find the name of the aircraft and the average salary of all pilots certified for this aircraft.

The screenshot shows the phpMyAdmin interface with the 'airline\_flightdb' database selected. The 'aircraft' table is chosen. A SQL query is executed, showing 5 rows of results. The query filters for aircraft with a cruising range greater than 1000 km and calculates the average salary of pilots certified for each aircraft.

aname	avg(e.salary)
707	50000.0000
747	75000.0000
Boeing	96666.6667
Dream	113333.3333
Dreamliner	113333.3333

- Find the names of pilots certified for some Boeing aircraft.

The screenshot shows the phpMyAdmin interface with the 'airline\_flightdb' database selected. The 'employees' table is chosen. A SQL query is executed, showing 3 rows of results. The query filters for pilots certified for Boeing aircraft and returns their distinct names.

ename
A
C
D

7. Find the aids of all aircraft that can be used on routes from Bengaluru to New Delhi.

The screenshot shows the phpMyAdmin interface for a database named 'airline\_flightdb'. The 'aircraft' table is selected. A SQL query is entered in the query box:

```
select a.aname from aircraft a where a.cruisingrange>(select min(f.distance) from flights f where f.departure='Bengaluru' and f.arrival='Delhi')
```

The query results show 3 rows of data:

aname
747
Dreamliner
Boeing

The interface also includes a sidebar with a list of databases and tables, a top navigation bar with various tools, and a bottom console area.