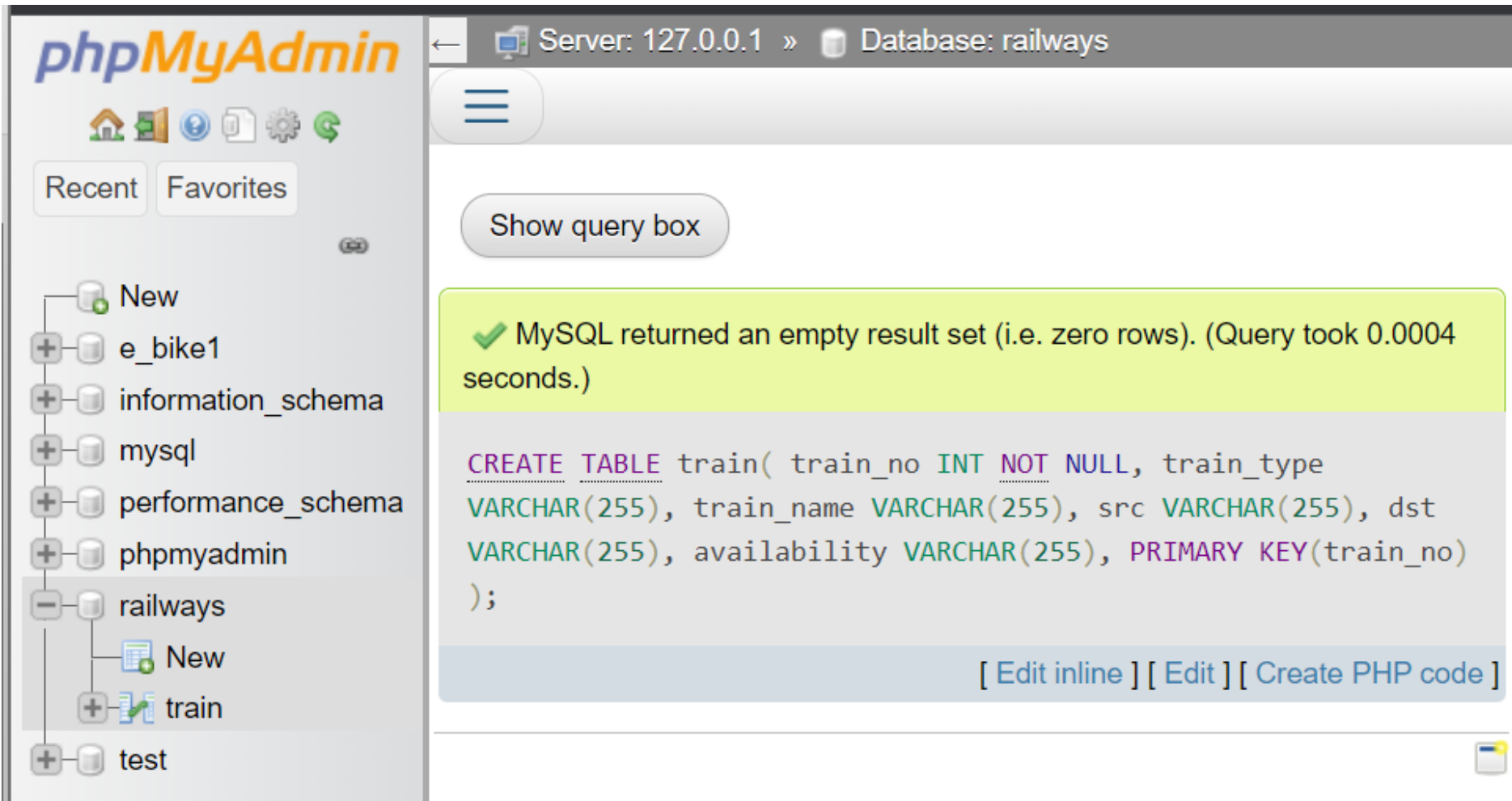


Keerthana Shivakumar

PES1UG20CS204

DBMS Lab 3

1. Adding PK and FK constraints for all applicable relations.









The screenshot shows the phpMyAdmin web interface. The top navigation bar indicates the server is 127.0.0.1 and the database is 'railways'. The left sidebar shows a tree view of databases, with 'railways' selected and expanded to show a 'train' table. The main content area displays a success message: 'MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)'. Below this, the SQL query for creating the 'train' table is shown:

```
CREATE TABLE train( train_no INT NOT NULL, train_type VARCHAR(255), train_name VARCHAR(255), src VARCHAR(255), dst VARCHAR(255), availability VARCHAR(255), PRIMARY KEY(train_no) );
```

 At the bottom right of the query area, there are links: '[Edit inline] [Edit] [Create PHP code]'.

phpMyAdmin



Recent Favorites

New

+ e_bike1

+ information_schema

+ mysql

+ performance_schema

+ phpmyadmin

- railways

- New
- + compartment
- train
 - Columns
 - New
 - availability (v
 - dst (varchar,
 - src (varchar,
 - train_name (
 - train_no (PR
 - train_type (v
 - + Indexes
- + test

← Server: 127.0.0.1 » Database: railways


☰

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0010 seconds.)

```
CREATE TABLE compartment( trainNo INT, compartmentNo INT, TYPE VARCHAR(255), capacity INT, availability VARCHAR(255), PRIMARY KEY(trainNo), FOREIGN KEY(trainNo) REFERENCES train(train_no) );
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)





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- + information_schema
- + mysql
- + performance_schema
- + phpmyadmin
- railways
 - New
 - + compartment
 - + train
 - + usr
- + test

Server: 127.0.0.1 » Database: railways



Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0010 seconds.)

```
CREATE TABLE usr(
  userId INT NOT NULL,
  NAME VARCHAR(255),
  dob DATE,
  address VARCHAR(255),
  age INT,
  phone VARCHAR(12),
  PRIMARY KEY(userId) );
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]



Recent Favorites

- New
- + e_bike1
- + information_schema
- + mysql
- + performance_schema
- + phpmyadmin
- railways
 - New
 - + compartment
 - + fare
 - train
 - Columns
 - New
 - availability (varchar, NULL)
 - dst (varchar, NULL)
 - src (varchar, NULL)
 - train_name (varchar, NULL)
 - train_no (PRI, int)
 - train_type (varchar, NULL)
 - + Indexes
 - + usr

Server: 127.0.0.1 » Database: railways

Show query box







✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0010 seconds.)

```
CREATE TABLE fare( trainType VARCHAR(255),
  compartmentType VARCHAR(255), farepkm DECIMAL(4, 2),
  PRIMARY KEY(trainType) );
```

[Edit inline] [Edit] [Create PHP code]

Console

phpMyAdmin



Recent Favorites

New

+ e_bike1

+ information_schema

+ mysql

+ performance_schema

+ phpmyadmin

- railways

- New
- + compartment
- + fare
- + ticket
- + train
- usr
 - Columns
 - New
 - address (varchar
 - age (int, NULL, n
 - dob (date, NULL,
 - NAME (varchar, l
 - phone (varchar, f
 - userId (PRI, int)

Server: 127.0.0.1 » Database: railways

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
CREATE TABLE ticket( PNR INT NOT NULL, NAME
VARCHAR(255), seat_no INT, age INT, compartment_type
VARCHAR(255), compartment_number INT, travel_date
DATE, arrival VARCHAR(255), departure VARCHAR(255),
arrival_time TIME, departure_time TIME, train_no INT,
user_id INT, PRIMARY KEY(PNR), FOREIGN KEY(train_no)
```

[Edit inline] [Edit] [Create PHP code]

Console



Recent

Favorites

- New
- + e_bike1
- + information_schema
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 - New
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 - + payment_info
 - + ticket
 - + train
 - + usr
- + test

Server: 127.0.0.1 » Database: railways



Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
CREATE TABLE payment_info( transaction_no INT NOT NULL,
card_no INT, bank VARCHAR(255), price INT, PNR INT,
PRIMARY KEY(transaction_no), FOREIGN KEY(PNR) REFERENCES
ticket(PNR) );
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]



Recent

Favorites

- New
- + e_bike1
- + information_schema
- + mysql
- + performance_schema
- + phpmyadmin
- railways
 - New
 - + compartment
 - + fare
 - + payment_info
 - + route_info
 - + ticket
 - + train
 - + usr
- + test

Server: 127.0.0.1 » Database: railways



Show query box














✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

```
CREATE TABLE route_info( train_no INT NOT NULL,  
startStation VARCHAR(255), startStationNo INT,  
endStationNo INT, endStationName VARCHAR(255), dist INT,  
PRIMARY KEY(train_no), FOREIGN KEY(train_no) REFERENCES  
train(train_no) );
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

2. For train_name and train_type in train table, add not null constraints value

Before

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	train_no 	int(11)			No	None			 Change  Drop More
<input type="checkbox"/>	2	train_type	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	3	train_name	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	4	src	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	5	dst	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	6	availability	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More

Command to alter table

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
ALTER TABLE train MODIFY COLUMN train_name VARCHAR(255) NOT NULL;
```














[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

```
ALTER TABLE train MODIFY COLUMN train_type VARCHAR(255) NOT NULL;
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

After

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	train_no 	int(11)			No	None			 Change  Drop More
<input type="checkbox"/>	2	train_type	varchar(255)	utf8mb4_general_ci		No	None			 Change  Drop More
<input type="checkbox"/>	3	train_name	varchar(255)	utf8mb4_general_ci		No	None			 Change  Drop More
<input type="checkbox"/>	4	src	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	5	dst	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	6	availability	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More

3. Add default constraint for compartment table setting availability attribute to Yes












Command

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
ALTER TABLE compartment ALTER availability SET DEFAULT 'Yes';
```














[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

After

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	trainNo 	int(11)			No	None			 Change  Drop More
<input type="checkbox"/>	2	compartmentNo	int(11)			Yes	NULL			 Change  Drop More
<input type="checkbox"/>	3	TYPE	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	4	capacity	int(11)			Yes	NULL			 Change  Drop More
<input type="checkbox"/>	5	availability	varchar(255)	utf8mb4_general_ci		Yes	Yes			 Change  Drop More

4. Train name should be unique

Before

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	train_no 	int(11)			No	None			 Change  Drop More
<input type="checkbox"/>	2	train_type	varchar(255)	utf8mb4_general_ci		No	None			 Change  Drop More
<input type="checkbox"/>	3	train_name	varchar(255)	utf8mb4_general_ci		No	None			 Change  Drop More
<input type="checkbox"/>	4	src	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	5	dst	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More
<input type="checkbox"/>	6	availability	varchar(255)	utf8mb4_general_ci		Yes	NULL			 Change  Drop More

Command

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

```
ALTER TABLE train ADD UNIQUE(train_name);
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

After

☐ Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext
 Add to central columns Remove from central columns

Print Propose table structure Track table Move columns Normalize

Add column(s)

Indexes

Action	Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
Edit Rename Drop	PRIMARY	BTREE	Yes	No	train_no	0	A	No	
Edit Rename Drop	train_name	BTREE	Yes	No	train_name	0	A	No	

After clicking unique button, it can be seen that train_name is added to list of unique attributes

5. Add check constraints to age in ticket (age>25)

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0007 seconds.)

```
ALTER TABLE ticket ADD CHECK (age > 25);
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

6. Rename the table

Before renaming

Your SQL query has been executed successfully.

```
SHOW TABLES;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)] [[Refresh](#)]

Extra options

Tables_in_railways

compartment

fare

payment_info

route_info

ticket

train

usr

Command to rename table

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

```
ALTER TABLE compartment RENAME TO comp;
```

[Edit inline](#) [\[Edit \]](#) [\[Create PHP code \]](#)

After renaming table

Your SQL query has been executed successfully.

```
SHOW TABLES;
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

Extra options

Tables_in_railways

comp

fare

payment_info

route_info

ticket

train

usr

7. Create a view using view command

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

```
CREATE VIEW Train_View AS SELECT * FROM train;
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

8. Use truncate and drop commands

localhost says

Do you really want to execute "TRUNCATE TABLE
comp;"?

OK

Cancel

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

```
TRUNCATE TABLE comp;
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0003 seconds.)

DROP TABLE comp;

[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

Your SQL query has been executed successfully.

SHOW TABLES;

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)] [[Refresh](#)]

Extra options

Tables_in_railways

fare

payment_info

route_info

ticket

train

train_view

usr