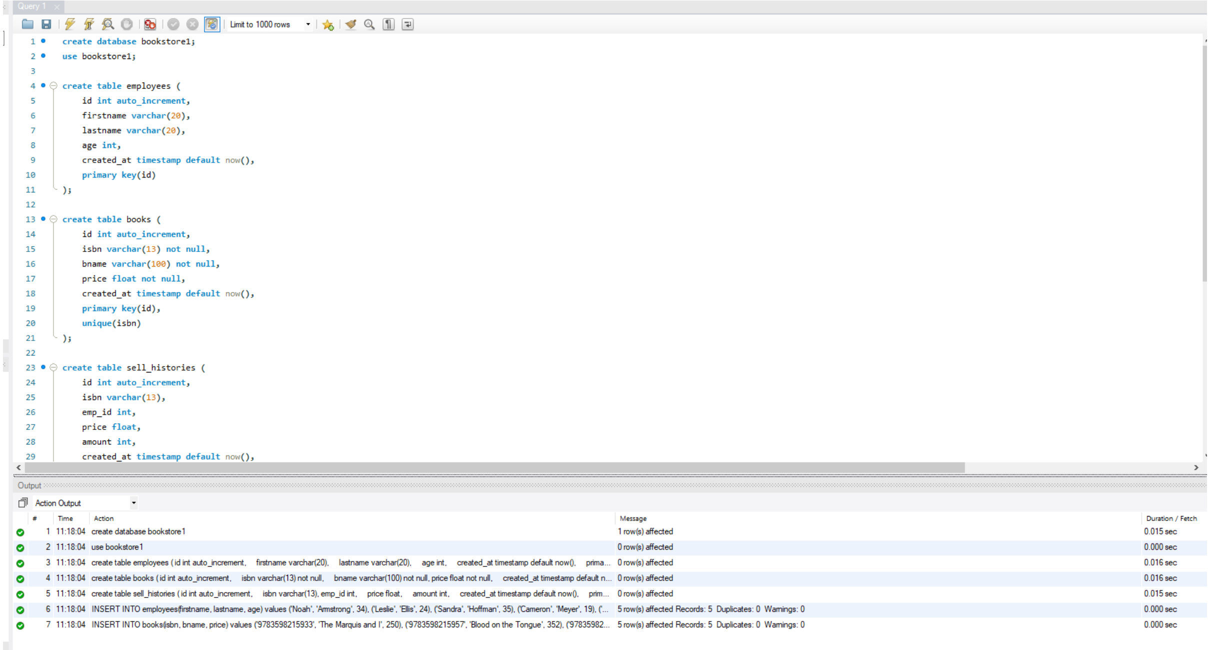
THAWATCHAI BUACHAN 6352300197

1.



```sql
create database bookstore1;
use bookstore1;

create table employees (
    id int auto_increment,
    firstname varchar(20),
    lastname varchar(20),
    age int,
    created_at timestamp default now(),
    primary key(id)
);

create table books (
    id int auto_increment,
    isbn varchar(13) not null,
    bname varchar(100) not null,
    price float not null,
    created_at timestamp default now(),
    primary key(id),
    unique(isbn)
);

create table sell_histories (
    id int auto_increment,
    isbn varchar(13),
    emp_id int,
    price float,
    amount int,
    created_at timestamp default now(),
```

Output

Action Output

```
#  Time      Action                                                                                                                                              Message                                                   Duration / Fetch
1  11:18:04  create database bookstore1                                                                                                                          1 row(s) affected                                         0.015 sec
2  11:18:04  use bookstore1                                                                                                                                      0 row(s) affected                                         0.000 sec
3  11:18:04  create table employees ( id int auto_increment,    firstname varchar(20),    lastname varchar(20),    age int,    created_at timestamp default now(),    prima...   0 row(s) affected                                         0.016 sec
4  11:18:04  create table books ( id int auto_increment,    isbn varchar(13) not null,    bname varchar(100) not null, price float not null,    created_at timestamp default n...   0 row(s) affected                                         0.016 sec
5  11:18:04  create table sell_histories ( id int auto_increment,    isbn varchar(13), emp_id int,    price float,    amount int,    created_at timestamp default now(),    prim...   0 row(s) affected                                         0.015 sec
6  11:18:04  INSERT INTO employees(firstname, lastname, age) values ('Noah', 'Armstrong', 34), ('Leslie', 'Ellis', 24), ('Sandra', 'Hoffman', 35), ('Cameron', 'Meyer', 19), ('...   5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.000 sec
7  11:18:04  INSERT INTO books(isbn, bname, price) values ('9783598215933', 'The Marquis and I', 250), ('9783598215957', 'Blood on the Tongue', 352), ('97835982...   5 row(s) affected Records: 5  Duplicates: 0  Warnings: 0   0.000 sec
```

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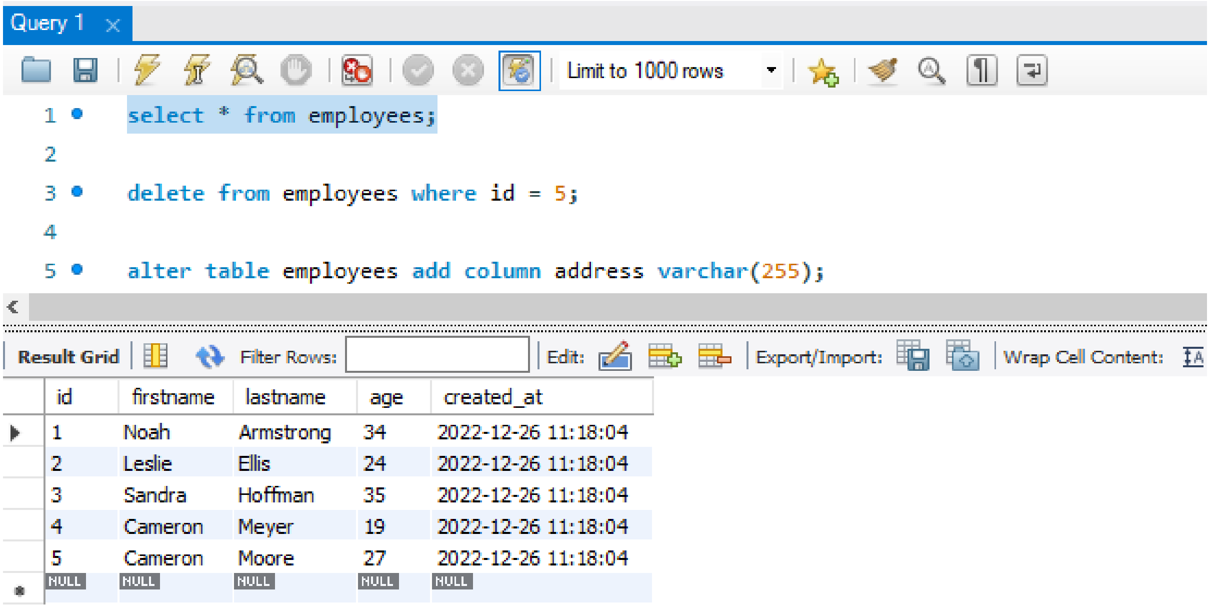
2.

Select all employees



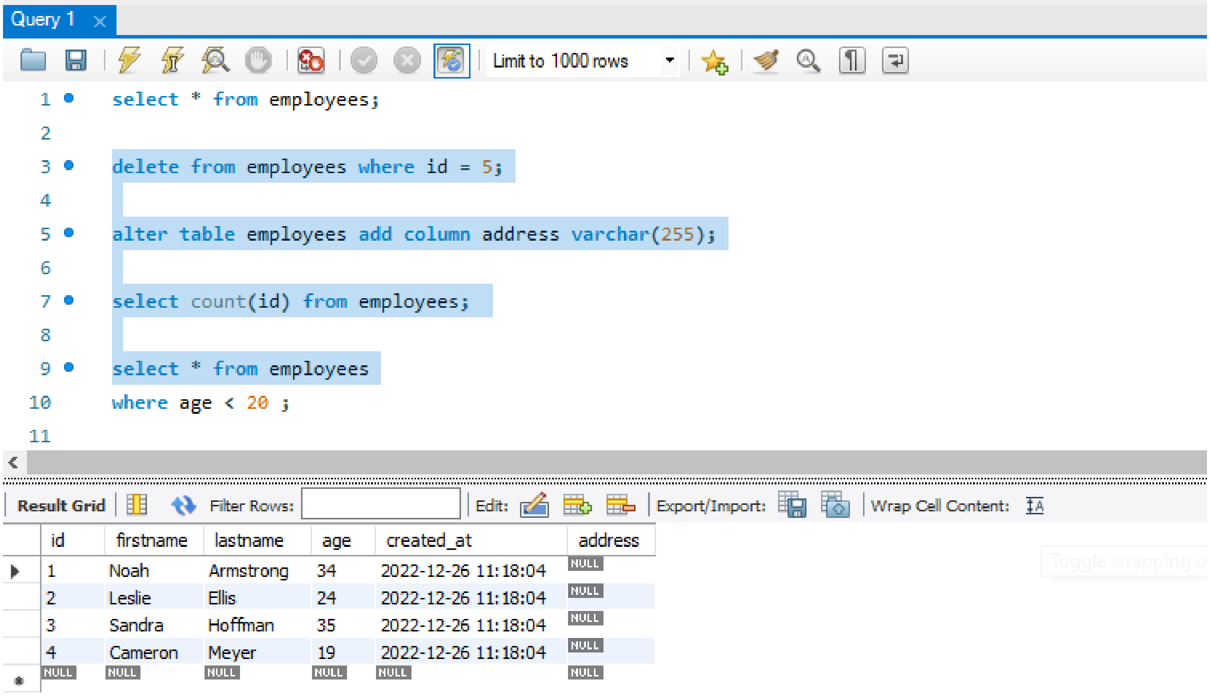
```
select * from employees;

delete from employees where id = 5;

alter table employees add column address varchar(255);
```

id	firstname	lastname	age	created_at
1	Noah	Armstrong	34	2022-12-26 11:18:04
2	Leslie	Ellis	24	2022-12-26 11:18:04
3	Sandra	Hoffman	35	2022-12-26 11:18:04
4	Cameron	Meyer	19	2022-12-26 11:18:04
5	Cameron	Moore	27	2022-12-26 11:18:04
NULL	NULL	NULL	NULL	NULL

After Delete row and Add column



```
select * from employees;

delete from employees where id = 5;

alter table employees add column address varchar(255);

select count(id) from employees;

select * from employees
where age < 20 ;

```

id	firstname	lastname	age	created_at	address
1	Noah	Armstrong	34	2022-12-26 11:18:04	NULL
2	Leslie	Ellis	24	2022-12-26 11:18:04	NULL
3	Sandra	Hoffman	35	2022-12-26 11:18:04	NULL
4	Cameron	Meyer	19	2022-12-26 11:18:04	NULL
NULL	NULL	NULL	NULL	NULL	NULL

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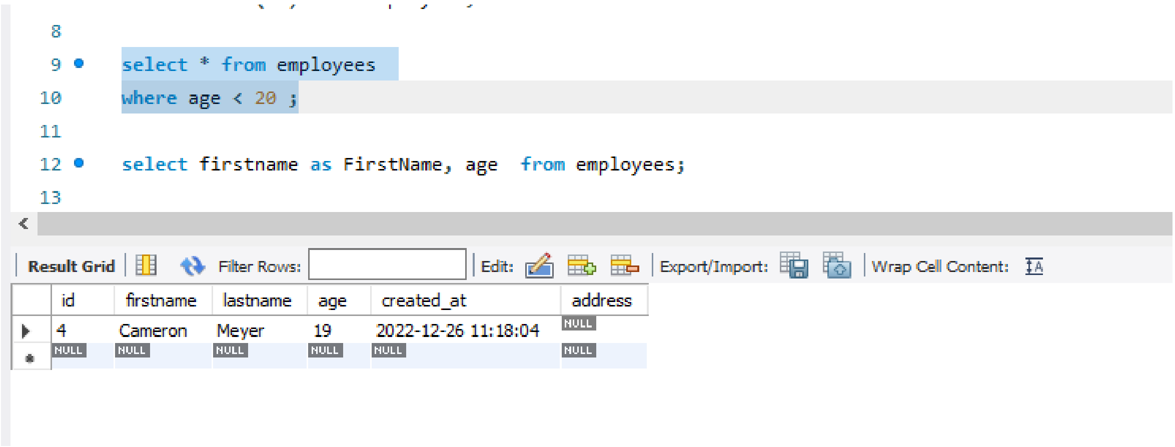
Age < 20

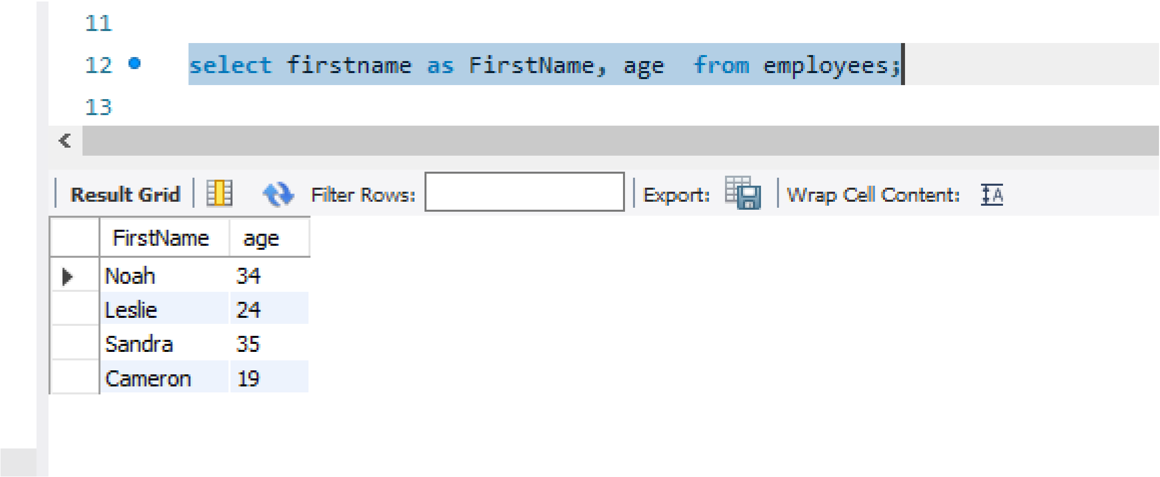


```
select * from employees
where age < 20 ;

select firstname as FirstName, age  from employees;
```

id	firstname	lastname	age	created_at	address
4	Cameron	Meyer	19	2022-12-26 11:18:04	NULL
NULL	NULL	NULL	NULL	NULL	NULL

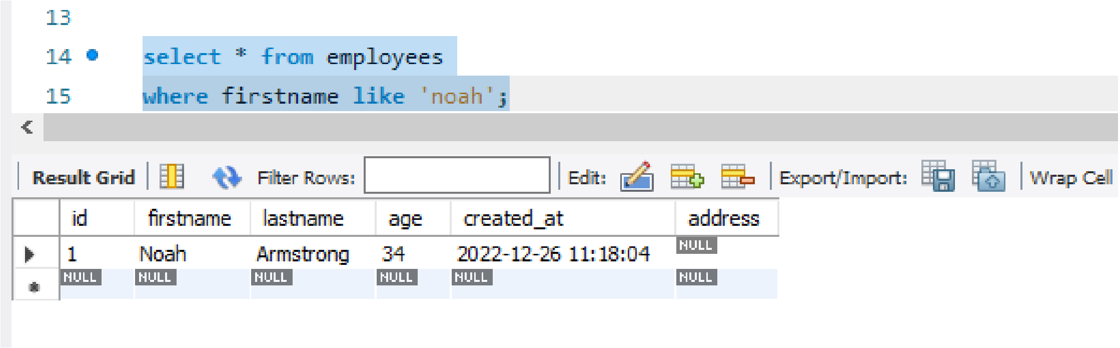
First Name and age



```
select firstname as FirstName, age  from employees;
```

FirstName	age
Noah	34
Leslie	24
Sandra	35
Cameron	19

Find name



```
select * from employees
where firstname like 'noah';
```

id	firstname	lastname	age	created_at	address
1	Noah	Armstrong	34	2022-12-26 11:18:04	NULL
NULL	NULL	NULL	NULL	NULL	NULL

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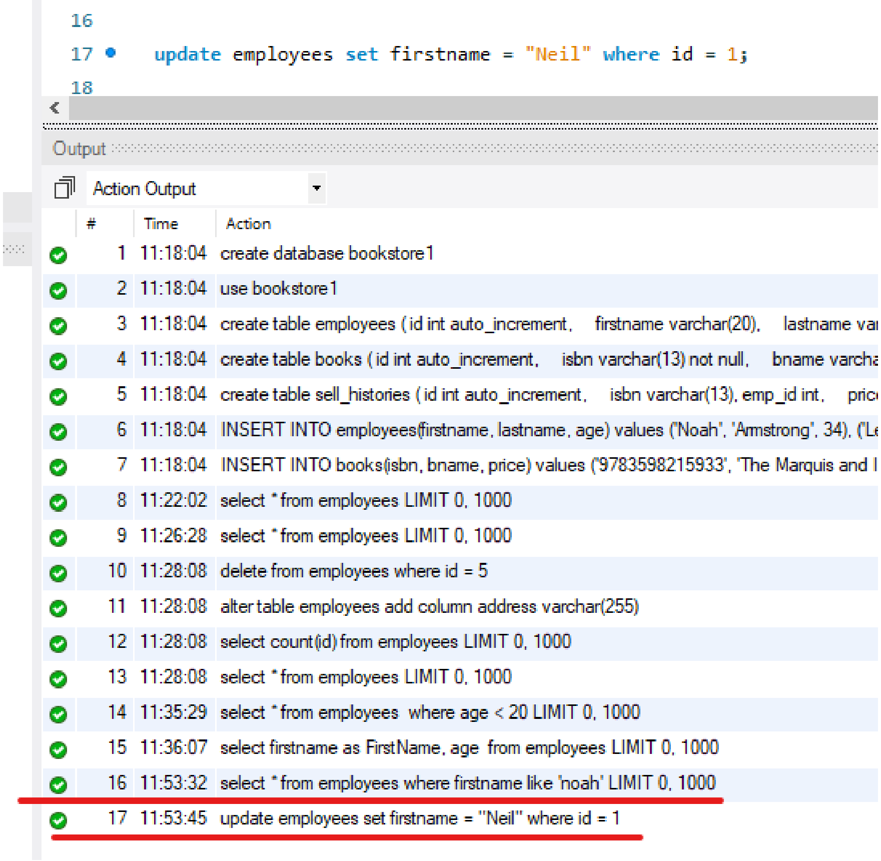
Update Name



```sql
update employees set firstname = "Neil" where id = 1;
```

	#	Time	Action
✓	1	11:18:04	create database bookstore1
✓	2	11:18:04	use bookstore1
✓	3	11:18:04	create table employees (id int auto_increment, firstname varchar(20), lastname va
✓	4	11:18:04	create table books (id int auto_increment, isbn varchar(13) not null, bname varcha
✓	5	11:18:04	create table sell_histories (id int auto_increment, isbn varchar(13), emp_id int, pric
✓	6	11:18:04	INSERT INTO employees(firstname, lastname, age) values ('Noah', 'Amstrong', 34), ('Le
✓	7	11:18:04	INSERT INTO books(isbn, bname, price) values ('9783598215933', 'The Marquis and I
✓	8	11:22:02	select * from employees LIMIT 0, 1000
✓	9	11:26:28	select * from employees LIMIT 0, 1000
✓	10	11:28:08	delete from employees where id = 5
✓	11	11:28:08	alter table employees add column address varchar(255)
✓	12	11:28:08	select count(id) from employees LIMIT 0, 1000
✓	13	11:28:08	select * from employees LIMIT 0, 1000
✓	14	11:35:29	select * from employees where age < 20 LIMIT 0, 1000
✓	15	11:36:07	select firstname as FirstName, age from employees LIMIT 0, 1000
✓	16	11:53:32	select * from employees where firstname like 'noah' LIMIT 0, 1000
✓	17	11:53:45	update employees set firstname = "Neil" where id = 1

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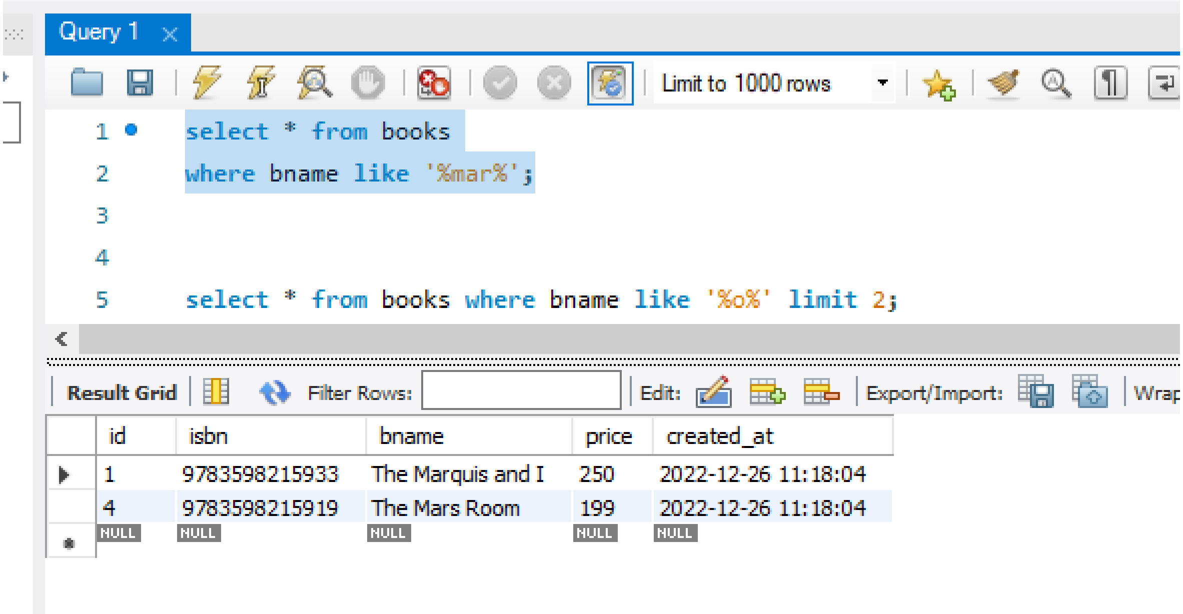
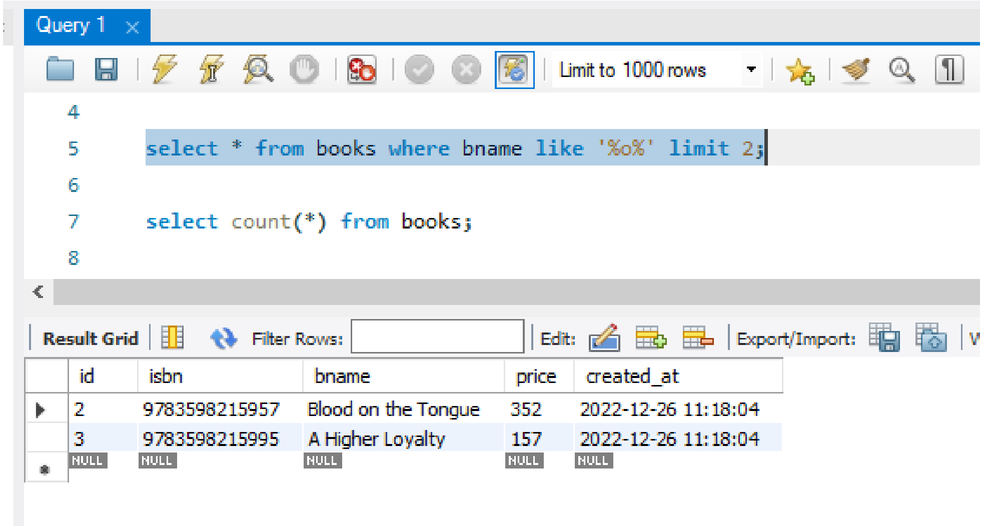
3 search 'mar'



```
select * from books
where bname like '%mar%';


select * from books where bname like '%o%' limit 2;
```

id	isbn	bname	price	created_at
1	9783598215933	The Marquis and I	250	2022-12-26 11:18:04
4	9783598215919	The Mars Room	199	2022-12-26 11:18:04
NULL	NULL	NULL	NULL	NULL

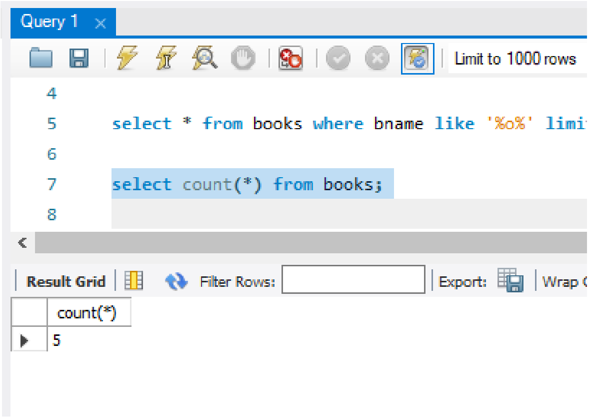
Search 'o' limit 2



```

select * from books where bname like '%o%' limit 2;

select count(*) from books;

```

id	isbn	bname	price	created_at
2	9783598215957	Blood on the Tongue	352	2022-12-26 11:18:04
3	9783598215995	A Higher Loyalty	157	2022-12-26 11:18:04
NULL	NULL	NULL	NULL	NULL

Count



```

select * from books where bname like '%o%' limi

select count(*) from books;

```

count(*)
5

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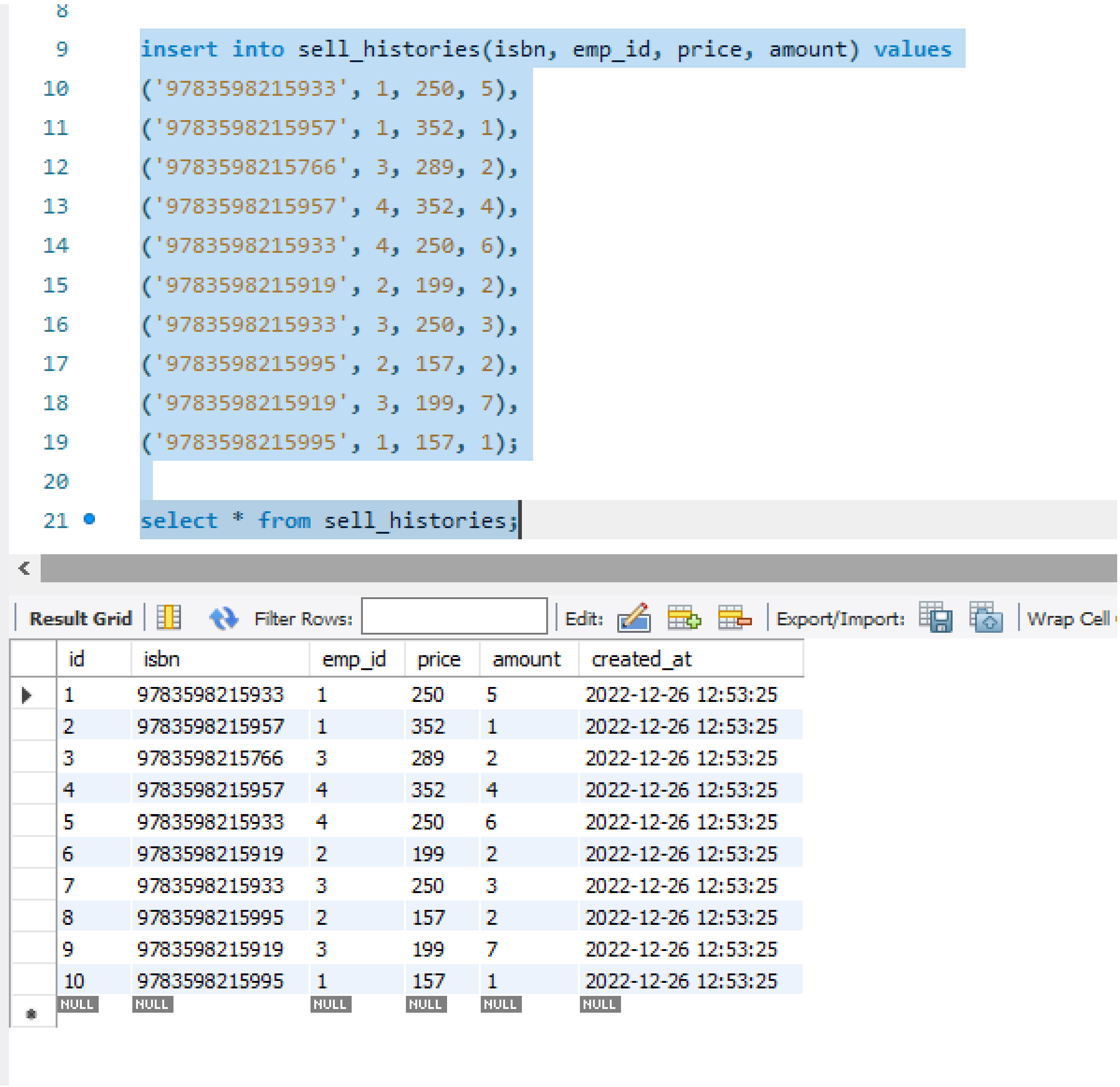
Insert data and show

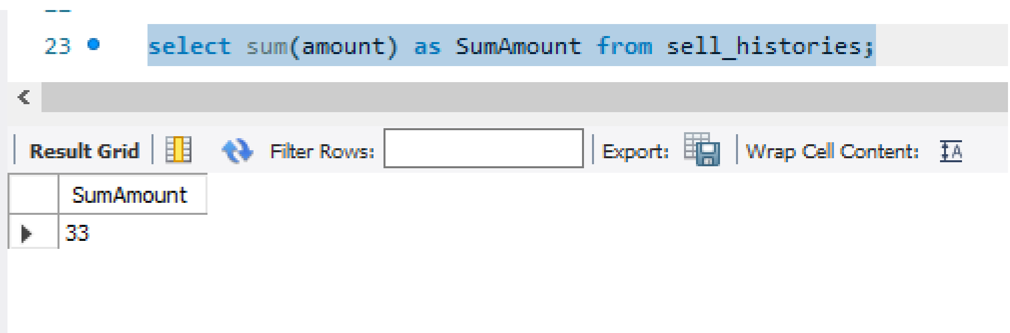


```sql
insert into sell_histories(isbn, emp_id, price, amount) values
('9783598215933', 1, 250, 5),
('9783598215957', 1, 352, 1),
('9783598215766', 3, 289, 2),
('9783598215957', 4, 352, 4),
('9783598215933', 4, 250, 6),
('9783598215919', 2, 199, 2),
('9783598215933', 3, 250, 3),
('9783598215995', 2, 157, 2),
('9783598215919', 3, 199, 7),
('9783598215995', 1, 157, 1);

select * from sell_histories;
```

id	isbn	emp_id	price	amount	created_at
1	9783598215933	1	250	5	2022-12-26 12:53:25
2	9783598215957	1	352	1	2022-12-26 12:53:25
3	9783598215766	3	289	2	2022-12-26 12:53:25
4	9783598215957	4	352	4	2022-12-26 12:53:25
5	9783598215933	4	250	6	2022-12-26 12:53:25
6	9783598215919	2	199	2	2022-12-26 12:53:25
7	9783598215933	3	250	3	2022-12-26 12:53:25
8	9783598215995	2	157	2	2022-12-26 12:53:25
9	9783598215919	3	199	7	2022-12-26 12:53:25
10	9783598215995	1	157	1	2022-12-26 12:53:25
NULL	NULL	NULL	NULL	NULL	NULL

Sum amount



```sql
select sum(amount) as SumAmount from sell_histories;
```

SumAmount
33

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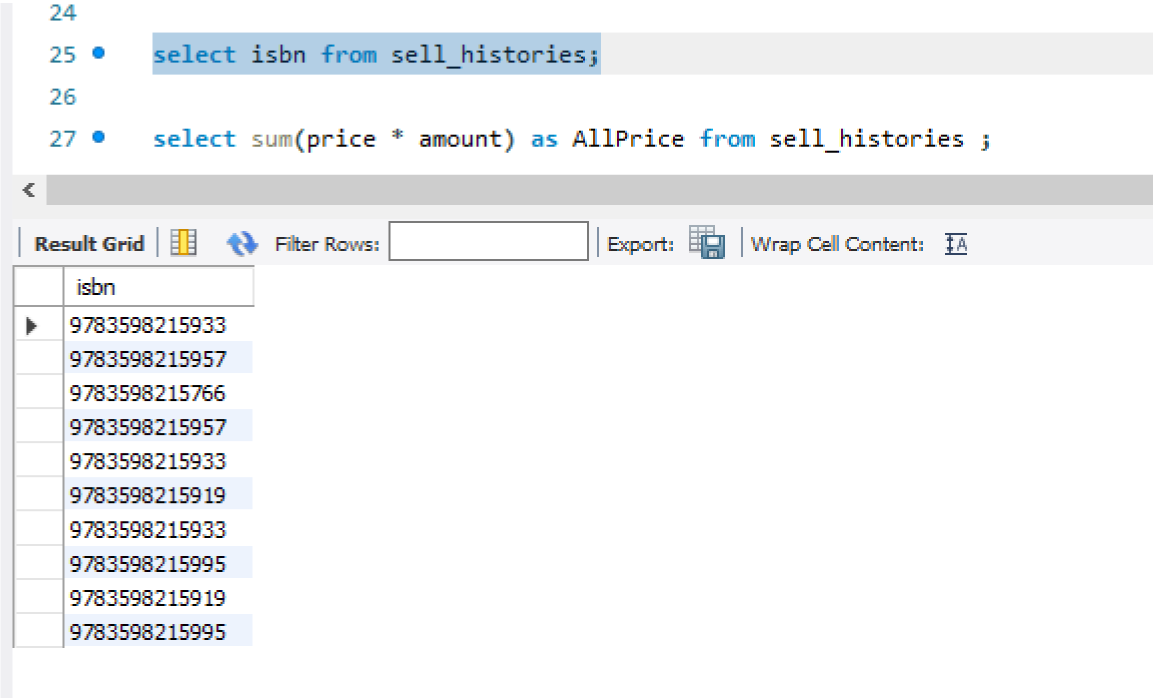
Show isbn

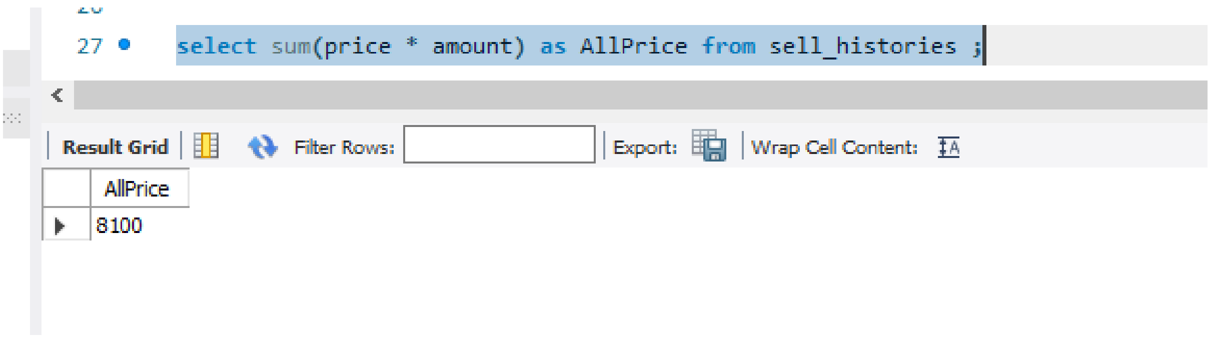


```
select isbn from sell_histories;

select sum(price * amount) as AllPrice from sell_histories ;
```

isbn
9783598215933
9783598215957
9783598215766
9783598215957
9783598215933
9783598215919
9783598215933
9783598215995
9783598215919
9783598215995

Sum price



```
select sum(price * amount) as AllPrice from sell_histories ;
```

AllPrice
8100

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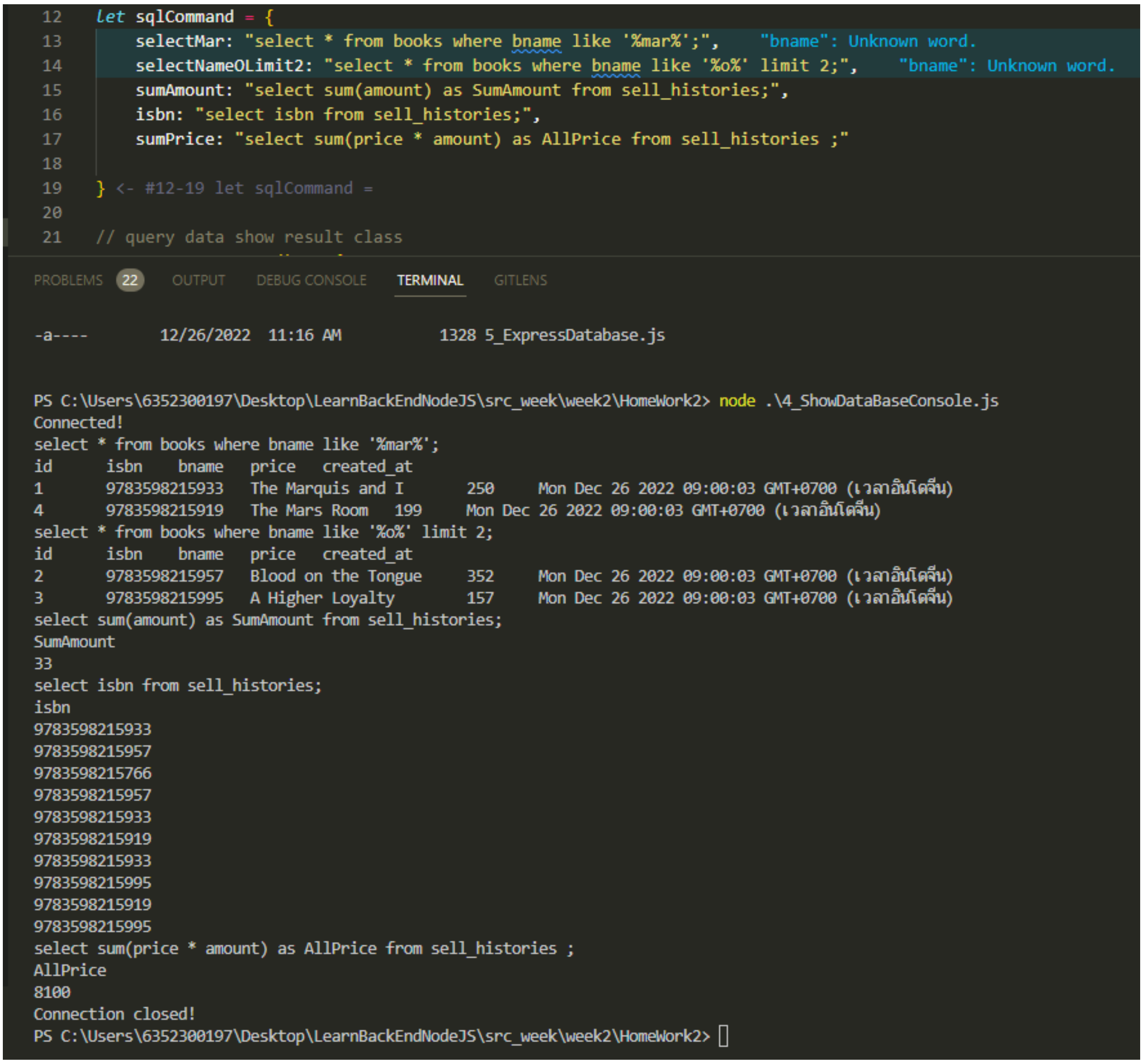
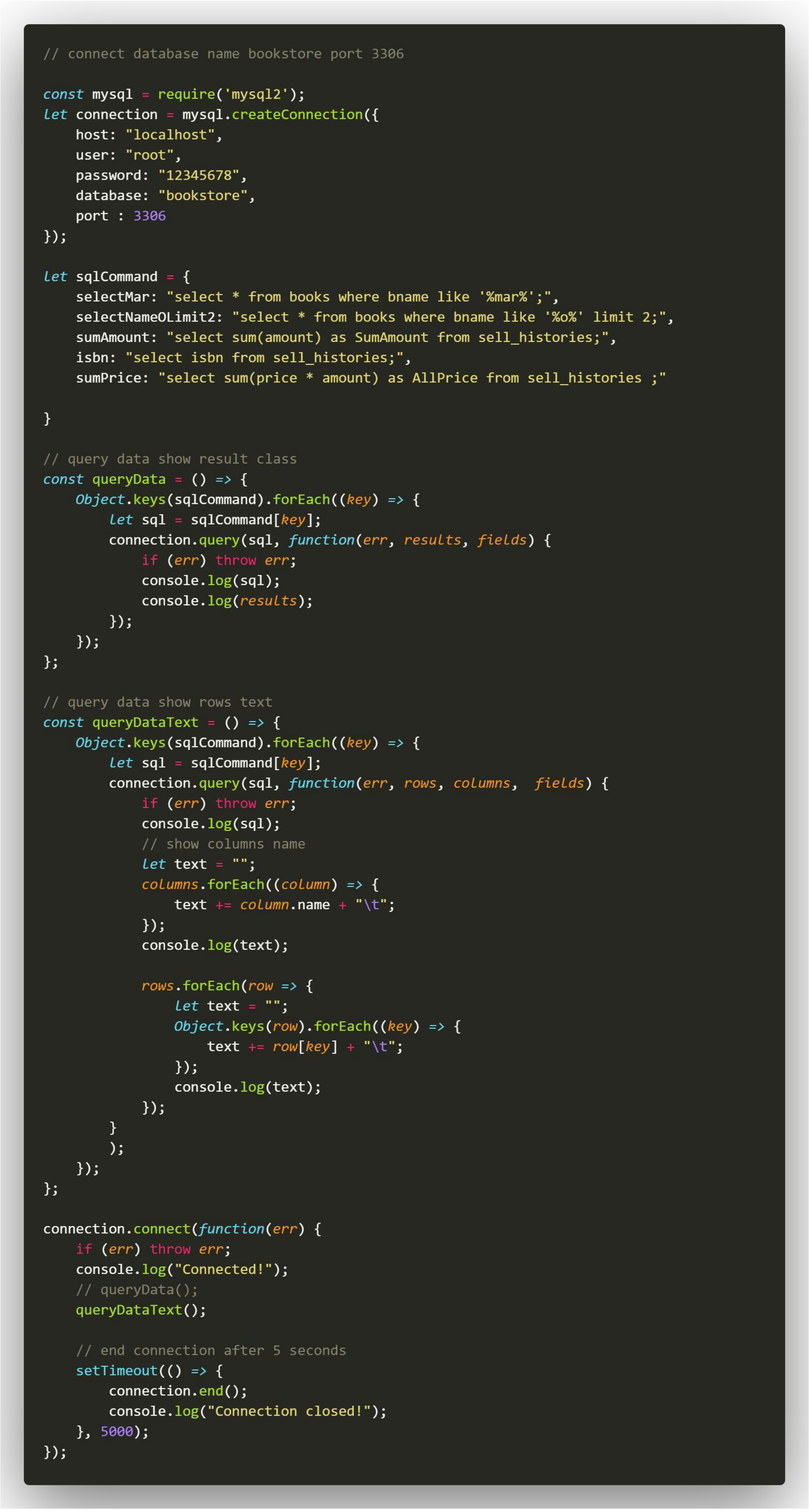
4 console log data



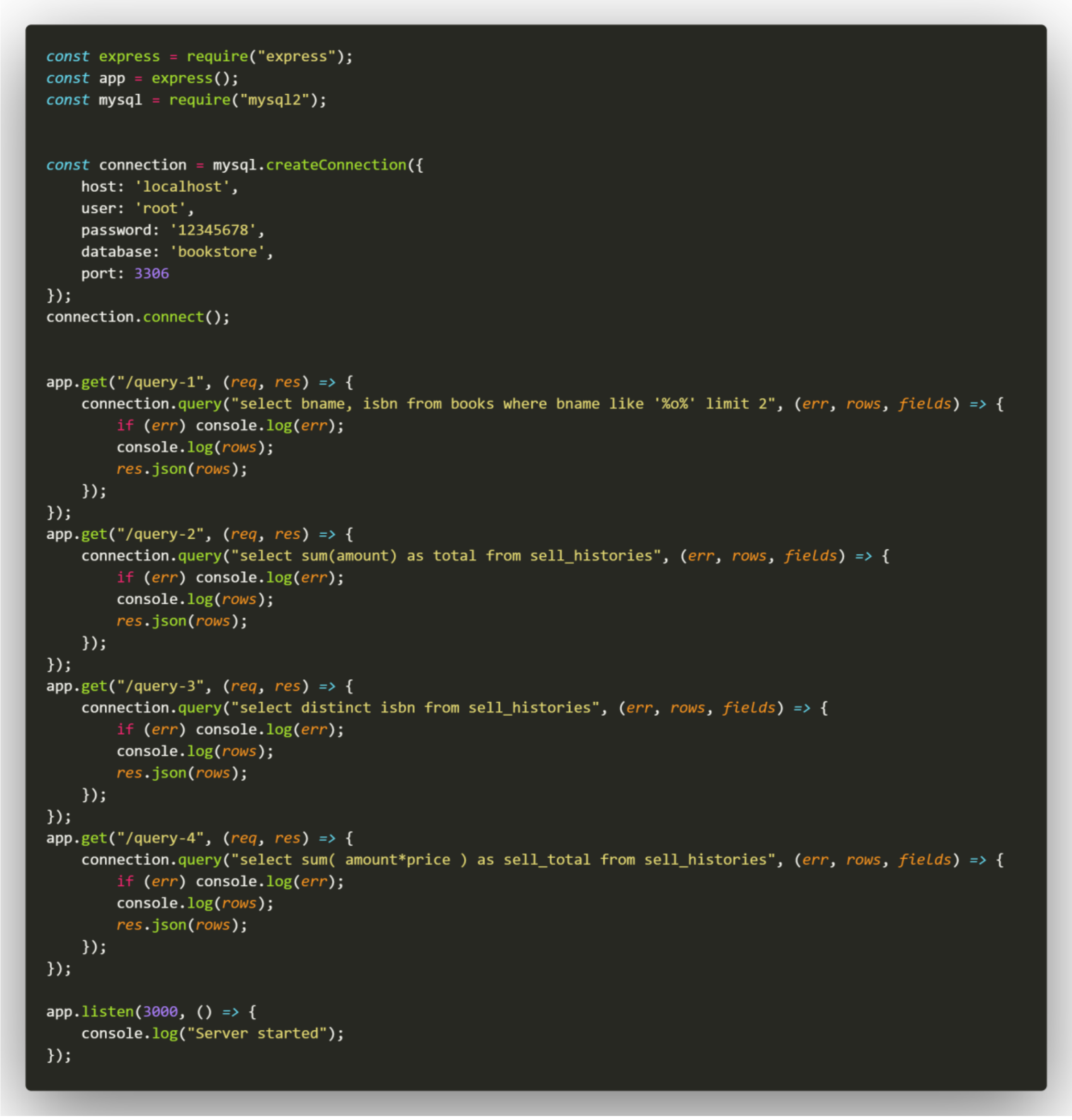
```
let sqlCommand = {
    selectMar: "select * from books where bname like '%mar%';",     "bname": Unknown word.
    selectNameOLimit2: "select * from books where bname like '%o%' limit 2;",     "bname": Unknown word.
    sumAmount: "select sum(amount) as SumAmount from sell_histories;",
    isbn: "select isbn from sell_histories;",
    sumPrice: "select sum(price * amount) as AllPrice from sell_histories ;"

} <- #12-19 let sqlCommand =

// query data show result class
```

```
-a----        12/26/2022  11:16 AM           1328 5_ExpressDatabase.js


PS C:\Users\6352300197\Desktop\LearnBackEndNodeJS\src_week\week2\HomeWork2> node .\4_ShowDataBaseConsole.js
Connected!
select * from books where bname like '%mar%';
id      isbn    bname   price   created_at
1       9783598215933   The Marquis and I       250     Mon Dec 26 2022 09:00:03 GMT+0700 (เวลาอินโดจีน)
4       9783598215919   The Mars Room   199     Mon Dec 26 2022 09:00:03 GMT+0700 (เวลาอินโดจีน)
select * from books where bname like '%o%' limit 2;
id      isbn    bname   price   created_at
2       9783598215957   Blood on the Tongue     352     Mon Dec 26 2022 09:00:03 GMT+0700 (เวลาอินโดจีน)
3       9783598215995   A Higher Loyalty        157     Mon Dec 26 2022 09:00:03 GMT+0700 (เวลาอินโดจีน)
select sum(amount) as SumAmount from sell_histories;
SumAmount
33
select isbn from sell_histories;
isbn
9783598215933
9783598215957
9783598215766
9783598215957
9783598215933
9783598215919
9783598215933
9783598215995
9783598215919
9783598215995
select sum(price * amount) as AllPrice from sell_histories ;
AllPrice
8100
Connection closed!
PS C:\Users\6352300197\Desktop\LearnBackEndNodeJS\src_week\week2\HomeWork2> 
```



```
// connect database name bookstore port 3306

const mysql = require('mysql2');
let connection = mysql.createConnection({
    host: "localhost",
    user: "root",
    password: "12345678",
    database: "bookstore",
    port : 3306
});

let sqlCommand = {
    selectMar: "select * from books where bname like '%mar%';",
    selectNameOLimit2: "select * from books where bname like '%o%' limit 2;",
    sumAmount: "select sum(amount) as SumAmount from sell_histories;",
    isbn: "select isbn from sell_histories;",
    sumPrice: "select sum(price * amount) as AllPrice from sell_histories ;"

}

// query data show result class
const queryData = () => {
    Object.keys(sqlCommand).forEach((key) => {
        let sql = sqlCommand[key];
        connection.query(sql, function(err, results, fields) {
            if (err) throw err;
            console.log(sql);
            console.log(results);
        });
    });
};

// query data show rows text
const queryDataText = () => {
    Object.keys(sqlCommand).forEach((key) => {
        let sql = sqlCommand[key];
        connection.query(sql, function(err, rows, columns,  fields) {
            if (err) throw err;
            console.log(sql);
            // show columns name
            let text = "";
            columns.forEach((column) => {
                text += column.name + "\t";
            });
            console.log(text);

            rows.forEach(row => {
                let text = "";
                Object.keys(row).forEach((key) => {
                    text += row[key] + "\t";
                });
                console.log(text);
            });
        }
        );
    });
};

connection.connect(function(err) {
    if (err) throw err;
    console.log("Connected!");
    // queryData();
    queryDataText();

    // end connection after 5 seconds
    setTimeout(() => {
        connection.end();
        console.log("Connection closed!");
    }, 5000);
});
```

5.



```
const express = require("express");
const app = express();
const mysql = require("mysql2");


const connection = mysql.createConnection({
    host: 'localhost',
    user: 'root',
    password: '12345678',
    database: 'bookstore',
    port: 3306
});
connection.connect();


app.get("/query-1", (req, res) => {
    connection.query("select bname, isbn from books where bname like '%o%' limit 2", (err, rows, fields) => {
        if (err) console.log(err);
        console.log(rows);
        res.json(rows);
    });
});
app.get("/query-2", (req, res) => {
    connection.query("select sum(amount) as total from sell_histories", (err, rows, fields) => {
        if (err) console.log(err);
        console.log(rows);
        res.json(rows);
    });
});
app.get("/query-3", (req, res) => {
    connection.query("select distinct isbn from sell_histories", (err, rows, fields) => {
        if (err) console.log(err);
        console.log(rows);
        res.json(rows);
    });
});
app.get("/query-4", (req, res) => {
    connection.query("select sum( amount*price ) as sell_total from sell_histories", (err, rows, fields) => {
        if (err) console.log(err);
        console.log(rows);
        res.json(rows);
    });
});

app.listen(3000, () => {
    console.log("Server started");
});
```