Міністерство освіти і науки України

Національний університет «Львівська політехніка»

Інститут комп’ютерних наук та інформаційних технологій

Кафедра «Системи штучного інтелекту»



**Лабораторна робота №2**

**з дисципліни: «ОБДЗ»**

*Виконав студент*

*групи КН-208*

*Жеребецький О.В*

*Прийняла:*

*асистент*

*Якимишин Х.М.*

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***Створюємо нову базу даних та таблички, по попередній моделі за допомогою таких команд.***

CREATE database internet\_shop\_1;

USE internet\_shop\_1;

CREATE TABLE `user` (

`user\_id` INT NOT NULL AUTO\_INCREMENT UNIQUE,

`user\_password` varchar(25) NOT NULL,

`user\_login` varchar(25) NOT NULL,

`user\_email` varchar(30),

`user\_about` varchar(1000),

`user\_first\_name` varchar(10) NOT NULL,

`user\_second\_name` varchar(20) NOT NULL,

PRIMARY KEY (`user\_id`)

);

CREATE TABLE `storage` (

`storage\_id` INT NOT NULL AUTO\_INCREMENT,

`storage\_adress\_city` VARCHAR(50) NOT NULL,

`storage\_rental\_price` INT NOT NULL,

`storage\_adress\_street` VARCHAR(50) NOT NULL,

`storage\_adress\_house` VARCHAR(50) NOT NULL,

PRIMARY KEY (`storage\_id`)

);

CREATE TABLE `comment` (

`comment\_id` INT NOT NULL,

`comment\_text` varchar(1000),

`comment\_time` DATETIME NOT NULL,

`comment\_mark` INT,

PRIMARY KEY (`comment\_id`)

);

CREATE TABLE `delivery\_service` (

`delivery\_service\_id` INT NOT NULL AUTO\_INCREMENT,

`delivery\_service\_prices` INT NOT NULL,

`delivery\_service\_about` VARCHAR(1000) NOT NULL,

PRIMARY KEY (`delivery\_service\_id`)

);

CREATE TABLE `product` (

`product\_id` INT NOT NULL AUTO\_INCREMENT,

`storage\_id` INT NOT NULL,

`product\_info` varchar(1000) NOT NULL,

`product\_price` INT NOT NULL,

`product\_theme` varchar(255),

PRIMARY KEY (`product\_id`),

CONSTRAINT `product\_fk0` FOREIGN KEY (`storage\_id`) REFERENCES `storage`(`storage\_id`) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE `active\_goods` (

`active\_goods\_id` INT NOT NULL AUTO\_INCREMENT,

`product\_id` INT NOT NULL,

`delivery\_service\_id` INT NOT NULL,

`sell/buy` BINARY NOT NULL,

`comment\_id` INT unique,

`activate\_time` DATETIME NOT NULL,

`arrive\_address\_city` varchar(20) NOT NULL,

`arrive\_address\_street` varchar(20) NOT NULL,

`arrive\_address\_house` varchar(20) NOT NULL,

PRIMARY KEY (`active\_goods\_id`),

CONSTRAINT `active\_goods\_fk2` FOREIGN KEY (`comment\_id`) REFERENCES `comment`(`comment\_id`) ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT `active\_goods\_fk1` FOREIGN KEY (`delivery\_service\_id`) REFERENCES `delivery\_service`(`delivery\_service\_id`) ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT `active\_goods\_fk0` FOREIGN KEY (`product\_id`) REFERENCES `product`(`product\_id`) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE `basket` (

`user\_id` INT NOT NULL,

`product\_id` INT NOT NULL,

`product\_amount` INT,

`basket\_name` varchar(20) NOT NULL,

CONSTRAINT `basket\_fk0` FOREIGN KEY (`user\_id`) REFERENCES `user`(`user\_id`) ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT `basket\_fk1` FOREIGN KEY (`product\_id`) REFERENCES `product`(`product\_id`) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE TABLE `list\_active\_goods` (

`user\_id` INT NOT NULL,

`active\_goods\_id` INT NOT NULL,

CONSTRAINT `list\_active\_goods\_fk0` FOREIGN KEY (`user\_id`) REFERENCES `user`(`user\_id`) ON DELETE CASCADE ON UPDATE CASCADE,

CONSTRAINT `list\_active\_goods\_fk1` FOREIGN KEY (`active\_goods\_id`) REFERENCES `active\_goods`(`active\_goods\_id`) ON DELETE CASCADE ON UPDATE CASCADE

);

***Переглянемо як виглядає наша база даних, та таблички у ній.***

mysql> USE internet\_shop\_1;

Database changed

mysql> SHOW TABLES;

+---------------------------+

| Tables\_in\_internet\_shop\_1 |

+---------------------------+

| active\_goods |

| basket |

| comment |

| delivery\_service |

| list\_active\_goods |

| product |

| storage |

| user |

+---------------------------+

8 rows in set (0.00 sec)

mysql> DESC active\_goods;

+-----------------------+-------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-----------------------+-------------+------+-----+---------+----------------+

| active\_goods\_id | int | NO | PRI | NULL | auto\_increment |

| product\_id | int | NO | MUL | NULL | |

| delivery\_service\_id | int | NO | MUL | NULL | |

| sell/buy | binary(1) | NO | | NULL | |

| comment\_id | int | YES | UNI | NULL | |

| activate\_time | datetime | NO | | NULL | |

| arrive\_address\_city | varchar(20) | NO | | NULL | |

| arrive\_address\_street | varchar(20) | NO | | NULL | |

| arrive\_address\_house | varchar(20) | NO | | NULL | |

+-----------------------+-------------+------+-----+---------+----------------+

9 rows in set (0.00 sec)

mysql> DESC basket;

+----------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------------+-------------+------+-----+---------+-------+

| user\_id | int | NO | MUL | NULL | |

| product\_id | int | NO | MUL | NULL | |

| product\_amount | int | YES | | NULL | |

| basket\_name | varchar(20) | NO | | NULL | |

+----------------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> DESC comment;

+--------------+---------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------------+---------------+------+-----+---------+-------+

| comment\_id | int | NO | PRI | NULL | |

| comment\_text | varchar(1000) | YES | | NULL | |

| comment\_time | datetime | NO | | NULL | |

| comment\_mark | int | YES | | NULL | |

+--------------+---------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> DESC delivery\_service;

+-------------------------+---------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------------------+---------------+------+-----+---------+----------------+

| delivery\_service\_id | int | NO | PRI | NULL | auto\_increment |

| delivery\_service\_prices | int | NO | | NULL | |

| delivery\_service\_about | varchar(1000) | NO | | NULL | |

+-------------------------+---------------+------+-----+---------+----------------+

3 rows in set (0.00 sec)

mysql> DESC list\_active\_goods;

+-----------------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------------+------+------+-----+---------+-------+

| user\_id | int | NO | MUL | NULL | |

| active\_goods\_id | int | NO | MUL | NULL | |

+-----------------+------+------+-----+---------+-------+

2 rows in set (0.00 sec)

mysql> DESC product;

+---------------+---------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+---------------+---------------+------+-----+---------+----------------+

| product\_id | int | NO | PRI | NULL | auto\_increment |

| storage\_id | int | NO | MUL | NULL | |

| product\_info | varchar(1000) | NO | | NULL | |

| product\_price | int | NO | | NULL | |

| product\_theme | varchar(255) | YES | | NULL | |

+---------------+---------------+------+-----+---------+----------------+

5 rows in set (0.00 sec)

mysql> DESC storage;

+-----------------------+-------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-----------------------+-------------+------+-----+---------+----------------+

| storage\_id | int | NO | PRI | NULL | auto\_increment |

| storage\_adress\_city | varchar(50) | NO | | NULL | |

| storage\_rental\_price | int | NO | | NULL | |

| storage\_adress\_street | varchar(50) | NO | | NULL | |

| storage\_adress\_house | varchar(50) | NO | | NULL | |

+-----------------------+-------------+------+-----+---------+----------------+

5 rows in set (0.00 sec)

mysql> DESC user;

+------------------+---------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+------------------+---------------+------+-----+---------+----------------+

| user\_id | int | NO | PRI | NULL | auto\_increment |

| user\_password | varchar(25) | NO | | NULL | |

| user\_login | varchar(25) | NO | | NULL | |

| user\_email | varchar(30) | YES | | NULL | |

| user\_about | varchar(1000) | YES | | NULL | |

| user\_first\_name | varchar(10) | NO | | NULL | |

| user\_second\_name | varchar(20) | NO | | NULL | |

+------------------+---------------+------+-----+---------+----------------+

7 rows in set (0.00 sec)

***Висновок:*** *на цій лабораторній роботі було завершено моделювання і засобами SQL створено базу даних, що складається з восьми таблиць.*