1.

CREATE TABLE `sys`.`students` (

`id` INT NOT NULL,

`name` VARCHAR(255),

`first\_name` VARCHAR(255),

`year\_of\_birth` DATE,

`gpa` FLOAT UNSIGNED,

PRIMARY KEY (`id`))

ENGINE = InnoDB

DEFAULT CHARACTER SET = utf8;

2.

GREATE TABLE `sys`.`books\_library` (

`id` INT NOT NULL,

`name\_of\_book` VARCHAR(45) NOT NULL,

`author\_of\_book` VARCHAR(45) NOT NULL,

`year\_of\_publishing` YEAR(4) NOT NULL,

`genre` VARCHAR(45) NOT NULL,

PRIMARY KEY (`id’ ))

ENGINE = InnoDB

DEFAULT CHARACTED SET = utf8;

3.

INSERT INTO `sys`.`books\_library` (`id`, `name\_of\_book`, `author\_of\_book`, `year\_of\_publishing`, `genre`) VALUES ('1', 'Povelitil muh', 'William Golding', '1954', 'Roman');

4.

Создание таблицы:

CREATE TABLE `sys`.`products` (

`product\_id` INT NOT NULL,

`product\_name` VARCHAR(255),

`price` FLOAT UNSIGNED,

PRIMARY KEY (`product\_id`))

ENGINE = InnoDB

DEFAULT CHARACTER SET = utf8;

Создаем товары:

INSERT INTO `sys`.`products` (`product\_id`, `product\_name`, `price`) VALUES ('1', 'Headphones', '900');

INSERT INTO `sys`.`products` (`product\_id`, `product\_name`, `price`) VALUES ('2', 'Player', '800');

INSERT INTO `sys`.`products` (`product\_id`, `product\_name`, `price`) VALUES ('3', 'Iphone', '11000');

INSERT INTO `sys`.`products` (`product\_id`, `product\_name`, `price`) VALUES ('4', 'Mixer', '9000');

Увеличить цену на 10% для всех товаров, у которых цена ниже 1000р

UPDATE `sys`.`products` SET `price` = `price` \* 1.1 WHERE `price` < 1000;

5

SELECT \*

FROM sys.products

ORDER BY `price` DESC

LIMIT 3;

6.

Создание таблицы

CREATE TABLE `sys`.`employees` (

`employee\_id` INT NOT NULL,

`employee\_name` VARCHAR(255),

`departament\_id` INT NOT NULL,

PRIMARY KEY (`employee\_id`))

ENGINE = InnoDB

DEFAULT CHARACTER SET = utf8;

Удаление:

DELETE FROM `sys`.`employees` WHERE (`departament\_id` = '3');

7.

CREATE TABLE `sys`.`students2` (

`student\_id` INT NOT NULL,

`student\_name` VARCHAR(255),

PRIMARY KEY (`student\_id`))

ENGINE = InnoDB

DEFAULT CHARACTER SET = utf8;

CREATE TABLE `sys`.`courses` (

`course\_id` INT NOT NULL,

`course\_name` VARCHAR(255),

PRIMARY KEY (`course\_id`))

ENGINE = InnoDB

DEFAULT CHARACTER SET = utf8;

ALTER TABLE `sys`.`students2`

ADD CONSTRAINT `id\_fk`

FOREIGN KEY (`student\_id`)

REFERENCES `sys`.`courses` (`course\_id`)

ON DELETE NO ACTION

ON UPDATE NO ACTION;

8.

CREATE TABLE `sys`.`departaments` (

`departament\_id` INT NOT NULL,

`departament\_name` VARCHAR(255),

PRIMARY KEY (`departament\_id`))

ENGINE = InnoDB

DEFAULT CHARACTER SET = utf8MB3;

CREATE TABLE `sys`.`employees` (

`employee\_id` INT NOT NULL,

`employee\_name` VARCHAR(255),

`departament\_id` INT NOT NULL,

PRIMARY KEY (`employee\_id`))

ENGINE = InnoDB

DEFAULT CHARACTER SET = utf8;

INSERT INTO `sys`.`departaments`(`departament\_id`, `departament\_name`) VALUES ('1', 'Finance');

INSERT INTO `sys`.`departaments`(`departament\_id`, `departament\_name`) VALUES ('2', 'FLogistic');

INSERT INTO `sys`.`departaments`(`departament\_id`, `departament\_name`) VALUES ('3', 'Economic');

INSERT INTO `sys`.`departaments`(`departament\_id`, `departament\_name`) VALUES ('4', 'Technical');

INSERT INTO `sys`.`employees`(`employee\_id`, `employee\_name`, `departament\_id`) VALUES ('1', 'Ivan', '2');

INSERT INTO `sys`.`employees`(`employee\_id`, `employee\_name`, `departament\_id`) VALUES ('3', 'Gleb', '3');

INSERT INTO `sys`.`employees`(`employee\_id`, `employee\_name`, `departament\_id`) VALUES ('6', 'Fedor', '1');

ALTER TABLE `sys`.`employees`

ADD INDEX `departament\_fk\_idx` (`departament\_id` ASC);

;

ALTER TABLE `sys`.`employees`

ADD CONSTRAINT `departament\_fk`

FOREIGN KEY (`departament\_id`)

REFERENCES `sys`.`departaments` (`departament\_id`)

ON DELETE NO ACTION

ON UPDATE NO ACTION;

SELECT `sys`.`departaments`.`departament\_name`, COUNT(`sys`.`employees`.`employee\_id`) AS employee\_count

FROM `sys`.`departaments`

LEFT JOIN `sys`.`employees` ON `sys`.`departaments`.`departament\_id`= `sys`.`employees`.`departament\_id`

GROUP BY `sys`.`departaments`.`departament\_name`;

9.

INSERT INTO `sys`.`groups` (`group\_id`, `group\_name`) VALUES ('1', '1A');

INSERT INTO `sys`.`groups` (`group\_id`, `group\_name`) VALUES ('2', '1B');

INSERT INTO `sys`.`groups` (`group\_id`, `group\_name`) VALUES ('3', '1C');

INSERT INTO `sys`.`groups` (`group\_id`, `group\_name`) VALUES ('4', '1F');

INSERT INTO `sys`.`groups` (`group\_id`, `group\_name`) VALUES ('5', '1E');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('3', 'Tomas', '2');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('4', 'Ivan', '3');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('5', 'Oleg', '4');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('6', 'Roman', '5');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('7', 'Julia', '1');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('8', 'ivan', '3');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('9', 'Lola', '4');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('10', 'Oleg', '2');

INSERT INTO `sys`.`students` (`student\_id`, `student\_name`, `group\_id`) VALUES ('11', 'Feda', '1');

SELECT `sys`.`students`.`student\_name`, `sys`.`groups`.`group\_name`

FROM `sys`.`students`

INNER JOIN `sys`.`groups` ON `sys`.`students`.`group\_id`= `sys`.`groups`.`group\_id`;

10.

SELECT `sys`.`books`.`book\_title`, `sys`.`authors`.`author\_name`

FROM `sys`.`books`

INNER JOIN `sys`.`authors` ON `sys`.`authors`.`author\_id` = `sys`.`books`.`author\_id`