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Açıklama otomatik olarak oluşturuldu

**YTU**

**IST2142-DATABASE**

**2022-2023 SPRING GR:2**

**HOMEWORK 2- CREATE A DATABASE MYSQL**

**LECTURER: COSKUN PARIM**

**METIN MIRZA VATANSEVER**

**MEHMET OMER TURK**

**MEHMET DEMIRBILEK**

**AHMET ERDEM CESUR**

**A) (20 pts) Create all your tables and all the attributes related to these tables in MYSQL (with script).**

CREATE TABLE check1 (

Storage\_no varchar(45) NOT NULL,

product\_id varchar(45) NOT NULL,

**PRIMARY KEY (Storage\_no,product\_id),**

UNIQUE KEY Storage\_no\_UNIQUE (Storage\_no),

UNIQUE KEY product\_id\_UNIQUE (product\_id),

CONSTRAINT product\_id FOREIGN KEY (product\_id) REFERENCES products (product\_id),

CONSTRAINT Storage\_no FOREIGN KEY (Storage\_no) REFERENCES storage (Storage\_no)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci

CREATE TABLE check2 (

Orders\_id varchar(45) NOT NULL,

Storage\_no varchar(45) NOT NULL,

**PRIMARY KEY (Orders\_id,Storage\_no),**

UNIQUE KEY Storage\_no\_UNIQUE (Storage\_no),

UNIQUE KEY Orders\_id\_UNIQUE (Orders\_id),

CONSTRAINT pk2orders\_id **FOREIGN KEY (Orders\_id)** REFERENCES orders (Orders\_id),

CONSTRAINT pk2storage\_no **FOREIGN KEY (Storage\_no)** REFERENCES storage (Storage\_no)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci

CREATE TABLE customer (

Customer\_id varchar(45) NOT NULL,

name&surname varchar(45) NOT NULL,

Gender varchar(45) NOT NULL,

adress varchar(45) NOT NULL,

phone\_number varchar(45) NOT NULL,

**PRIMARY KEY (Customer\_id),**

UNIQUE KEY Customer\_id\_UNIQUE (Customer\_id),

UNIQUE KEY phone\_number\_UNIQUE (phone\_number),

CONSTRAINT check\_Gender CHECK (((Gender = \_utf8mb4'F') or (Gender = \_utf8mb4'M')))

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci

CREATE TABLE orders (

Orders\_id varchar(45) NOT NULL,

Orders\_details varchar(45) NOT NULL,

total\_orders varchar(45) NOT NULL,

customer\_id varchar(45) NOT NULL,

bill\_information varchar(45) NOT NULL,

**PRIMARY KEY (Orders\_id),**

UNIQUE KEY Orders\_id\_UNIQUE (Orders\_id),

KEY customer\_id\_idx (customer\_id),

KEY bill\_information\_idx (bill\_information),

CONSTRAINT bill\_information **FOREIGN KEY (bill\_information)** REFERENCES pay\_options (bill\_information),

CONSTRAINT customer\_id **FOREIGN KEY (customer\_id)** REFERENCES customer (Customer\_id),

CONSTRAINT check\_total\_orders CHECK ((total\_orders > 0))

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci

CREATE TABLE pay\_options (

bill\_information varchar(45) NOT NULL,

order\_options varchar(45) NOT NULL,

order\_date varchar(45) NOT NULL,

orders\_details varchar(45) NOT NULL,

**PRIMARY KEY (bill\_information),**

UNIQUE KEY bill\_information\_UNIQUE (bill\_information),

CONSTRAINT check\_order\_options CHECK (((order\_options = \_utf8mb4'Credit Card') or (0 <> \_utf8mb4'Cash')))

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci

CREATE TABLE products (

product\_id varchar(45) NOT NULL,

Colour varchar(45) NOT NULL,

Size varchar(45) NOT NULL,

Type varchar(45) NOT NULL,

**PRIMARY KEY (product\_id),**

UNIQUE KEY product\_id\_UNIQUE (product\_id),

CONSTRAINT check\_Colour CHECK (((Colour = \_utf8mb4'Black') or (0 <> \_utf8mb4'White') or (0 <> \_utf8mb4'Yellow') or (0 <> \_utf8mb4'Blue'))),

CONSTRAINT check\_products CHECK (((Size = \_utf8mb4'Small') or (0 <> \_utf8mb4'Medium') or (0 <> \_utf8mb4'Large'))),

CONSTRAINT check\_size CHECK (((Size = \_utf8mb4'Small') or (0 <> \_utf8mb4'Medium') or (0 <> \_utf8mb4'Large')))

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci

CREATE TABLE storage (

Storage\_no varchar(45) NOT NULL,

Amount varchar(45) NOT NULL,

Row&shelf number varchar(45) NOT NULL,

**PRIMARY KEY (Storage\_no),**

UNIQUE KEY Storage\_no\_UNIQUE (Storage\_no)

) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_0900\_ai\_ci

**B) (20 pts) Define the restrictions for the attributes (with script).**

**Gender Choice Customers**

ALTER TABLE ödev1.customer

ADD CONSTRAINT check\_Gender CHECK

(Gender = "F" OR Gender = "M") enforced ;

**Your Shopping Cart Must Contain At Least One Product**

ALTER TABLE ödev1.orders

ADD CONSTRAINT check\_total\_orders CHECK

(total\_orders > 0) enforced;

**Payment Method**

ALTER TABLE ödev1.pay\_options ADD CONSTRAINT check\_order\_options CHECK

(order\_options = "Credit Card" OR "Cash" ) enforced;

**Product Features**

ALTER TABLE ödev1.products ADD CONSTRAINT check\_size CHECK

(size = "Small" OR "Medium" OR "Large") enforced;

ALTER TABLE ödev1.products ADD CONSTRAINT check\_Colour CHECK

(Colour = "Black" OR "White" OR "Yellow" OR "Blue") enforced;

**C) (20 pts) Define primary keys (with script)**

**We have done this in A, you can see the codes with bold letter.**

**D) (20 pts) Define foreign keys and relate the tables with each other (with script)**

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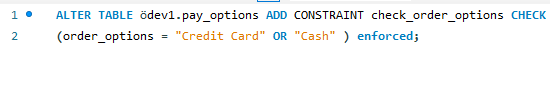
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**E) (20 pts) Draw the schema of your ER model with reverse engineering (without script).**

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