

## Create Table and Alter Table query

```
CREATE TABLE cabin (  
    ship_code      INT(4) NOT NULL,  
    cabin_no       INT(5) NOT NULL,  
    cabin_capacity INT(1) NOT NULL,  
    cabin_class    ENUM('B', 'I', 'O', 'S') NOT NULL,  
    PRIMARY KEY (cabin_no, ship_code)  
);
```

```
ALTER TABLE cabin MODIFY COLUMN ship_code INT(4) NOT NULL COMMENT 'Identifier for ship';
```

```
ALTER TABLE cabin MODIFY COLUMN cabin_no INT(5) NOT NULL COMMENT 'Cabin number on given ship';
```

```
ALTER TABLE cabin MODIFY COLUMN cabin_capacity INT(1) NOT NULL COMMENT 'Sleeping capacity for cabin';
```

```
ALTER TABLE cabin MODIFY COLUMN cabin_class ENUM('B', 'I', 'O', 'S') NOT NULL COMMENT 'WC class of the cabin (B Balcony, I Interior, O Ocean View, S Suite)';
```

```
CREATE TABLE country (  
    country_code CHAR(2) NOT NULL,  
    country_name VARCHAR(40) NOT NULL,  
    PRIMARY KEY (country_code)  
) COMMENT='Country information';
```

```
ALTER TABLE country MODIFY COLUMN country_code CHAR(2) COMMENT 'Country code';
```

```
ALTER TABLE country MODIFY COLUMN country_name VARCHAR(40) COMMENT 'Country name';
```

```
CREATE TABLE cruise (  
    cruise_id          INT(6) NOT NULL,  
    cruise_name        VARCHAR(80) NOT NULL,  
    cruise_description VARCHAR(200) NOT NULL,  
    ship_code          INT(4) NOT NULL,  
    cruise_departure_datetime DATETIME NOT NULL,  
    cruise_duration     INT(2) NOT NULL,  
    PRIMARY KEY (cruise_id)  
);
```

```
ALTER TABLE cruise MODIFY COLUMN cruise_id INT(6) NOT NULL COMMENT 'Cruise
```

identifier - used only for a single cruise';

```
ALTER TABLE cruise MODIFY COLUMN cruise_name VARCHAR(80) NOT NULL COMMENT
'Name of cruise';
```

```
ALTER TABLE cruise MODIFY COLUMN cruise_description VARCHAR(200) NOT NULL
COMMENT 'Description of cruise';
```

```
ALTER TABLE cruise MODIFY COLUMN ship_code INT(4) NOT NULL COMMENT 'Identifier for
ship';
```

```
ALTER TABLE cruise MODIFY COLUMN cruise_departure_datetime DATETIME NOT NULL
COMMENT 'Cruise scheduled departure datetime';
```

```
ALTER TABLE cruise MODIFY COLUMN cruise_duration INT(2) NOT NULL COMMENT 'Cruise
duration in days';
```

```
CREATE TABLE ship (
    ship_code          INT(4) NOT NULL,
    ship_name          VARCHAR(20) NOT NULL,
    ship_guest_capacity INT(4) NOT NULL,
    country_code       CHAR(2) NOT NULL,
    PRIMARY KEY (ship_code)
);
```

```
ALTER TABLE ship MODIFY COLUMN ship_code INT(4) NOT NULL COMMENT 'Identifier for
ship';
```

```
ALTER TABLE ship MODIFY COLUMN ship_name VARCHAR(20) NOT NULL COMMENT 'Name
of ship';
```

```
ALTER TABLE ship MODIFY COLUMN ship_guest_capacity INT(5) NOT NULL COMMENT
'Ships passenger capacity';
```

```
ALTER TABLE ship MODIFY COLUMN country_code CHAR(2) NOT NULL COMMENT 'Country
code';
```

```
CREATE TABLE passenger (
    passenger_id      INT(6) NOT NULL,
    passenger_fname   VARCHAR(30),
    passenger_lname   VARCHAR(30),
    passenger_dob     DATE NOT NULL,
    passenger_gender  ENUM('M', 'F', 'X') NOT NULL,
    passenger_contact CHAR(10),
    PRIMARY KEY (passenger_id),
    CONSTRAINT passenger_un UNIQUE (passenger_contact)
) COMMENT='Table containing information about passengers.';
```

```
ALTER TABLE passenger MODIFY COLUMN passenger_id INT(6) NOT NULL COMMENT
```

'Unique identifier for a passenger';

```
ALTER TABLE passenger MODIFY COLUMN passenger_fname VARCHAR(30) COMMENT  
'Passenger first name';
```

```
ALTER TABLE passenger MODIFY COLUMN passenger_lname VARCHAR(30) COMMENT  
'Passenger last name';
```

```
ALTER TABLE passenger MODIFY COLUMN passenger_dob DATE NOT NULL COMMENT  
'Passenger's date of birth';
```

```
ALTER TABLE passenger MODIFY COLUMN passenger_gender ENUM('M', 'F', 'X') NOT NULL  
COMMENT 'Passenger gender(M for male, F for female, or X for non-  
binary/indeterminate/intersex/unspecified/other)';
```

```
ALTER TABLE passenger MODIFY COLUMN passenger_contact CHAR(10) COMMENT  
'Passenger contact phone number';
```

```
CREATE TABLE disable_cabin (  
    ship_code      INT(4) NOT NULL,  
    cabin_no       INT(5) NOT NULL,  
    auxiliary_facilities  ENUM('Y', 'N', 'U') NOT NULL,  
    PRIMARY KEY (cabin_no, ship_code)  
);
```

```
ALTER TABLE cabin MODIFY COLUMN ship_code INT(4) NOT NULL COMMENT 'Identifier for  
ship';
```

```
ALTER TABLE cabin MODIFY COLUMN cabin_no INT(5) NOT NULL COMMENT 'Cabin number  
on given ship';
```

```
ALTER TABLE cabin MODIFY COLUMN cabin_class ENUM('Y', 'N', 'U') NOT NULL COMMENT  
'Y for yes, N for no, U for Unknown';
```

```
CREATE TABLE manifest (  
    manifest_id      INT(7) NOT NULL,  
    passenger_id     INT(6) NOT NULL,  
    cruise_id        INT(6) NOT NULL,  
    manifest_board_datetime DATE,  
    ship_code        INT(4) NOT NULL,  
    cabin_no         INT(5) NOT NULL,  
    PRIMARY KEY (manifest_id),  
    UNIQUE (passenger_id, cruise_id)  
);
```

```

ALTER TABLE manifest MODIFY COLUMN manifest_id INT(7) NOT NULL COMMENT 'Unique
identifier for a manifest';
ALTER TABLE manifest MODIFY COLUMN passenger_id INT(6) NOT NULL COMMENT 'Unique
identifier for a passenger';
ALTER TABLE manifest MODIFY COLUMN cruise_id INT(6) NOT NULL COMMENT 'Cruise
identifier - used only for a single cruise';
ALTER TABLE manifest MODIFY COLUMN manifest_board_datetime DATE COMMENT
'Date/time passenger boarded ship';
ALTER TABLE manifest MODIFY COLUMN ship_code INT(4) NOT NULL COMMENT 'Identifier
for ship';
ALTER TABLE manifest MODIFY COLUMN cabin_no INT(5) NOT NULL COMMENT 'Cabin
number on given ship';

```

## Insert data query

```

INSERT INTO country(country_code, country_name)
VALUES('CN', 'China');
INSERT INTO country(country_code, country_name)
VALUES('AM', 'Armenia');
INSERT INTO country(country_code, country_name)
VALUES('AU', 'Australia');
INSERT INTO country(country_code, country_name)
VALUES('BR', 'Brazil');
INSERT INTO country(country_code, country_name)
VALUES('CA', 'Canada');
INSERT INTO country(country_code, country_name)
VALUES('FO', 'Faroe Islands');
INSERT INTO country(country_code, country_name)
VALUES('FJ', 'Fiji');
INSERT INTO country(country_code, country_name)
VALUES('FI', 'Finland');
INSERT INTO country(country_code, country_name)
VALUES('FR', 'France');

```

```

INSERT INTO ship(
    ship_code,
    ship_name,
    ship_guest_capacity,
    country_code
)
VALUES(110, 'Beijing', 5000, 'CN');
INSERT INTO ship(
    ship_code,

```

```

        ship_name,
        ship_guest_capacity,
        country_code
    )
VALUES(
    102,
    'Carnival Splendor',
    1864,
    'AM'
);
INSERT INTO ship(
    ship_code,
    ship_name,
    ship_guest_capacity,
    country_code
)
VALUES(
    103,
    'Majestic Princess',
    2240,
    'AU'
);
INSERT INTO ship(
    ship_code,
    ship_name,
    ship_guest_capacity,
    country_code
)
VALUES(104, 'Queen Mary 2', 4328, 'BR');
INSERT INTO ship(
    ship_code,
    ship_name,
    ship_guest_capacity,
    country_code
)
VALUES(105, 'Luminos', 1240, 'CA');
INSERT INTO ship(
    ship_code,
    ship_name,
    ship_guest_capacity,
    country_code
)
VALUES(106, 'Coral Princess', 1860, 'FO');
INSERT INTO ship(

```

```
    ship_code,  
    ship_name,  
    ship_guest_capacity,  
    country_code  
)
```

```
INSERT INTO cruise(  
    cruise_id,  
    cruise_name,  
    cruise_description,  
    ship_code,  
    cruise_departure_datetime,  
    cruise_duration  
)  
VALUES(  
    2,  
    'Melbourne to Sydney',  
    '2 nights at sea from Melbourne to Sydney.',  
    102,  
    STR_TO_DATE(  
        '16-Apr-2022 9:00',  
        '%d-%b-%Y %H:%i'  
    ),  
    2  
);
```

```
INSERT INTO cruise(  
    cruise_id,  
    cruise_name,  
    cruise_description,  
    ship_code,  
    cruise_departure_datetime,  
    cruise_duration  
)  
VALUES(  
    4,  
    'Queensland Islands',  
    '7 Night Queensland Islands Cruise. Start from Brisbane. Stops at Airlie Beach, Port  
Douglas, Cairns, Willis Island. Ends at Brisbane.',  
    110,  
    STR_TO_DATE(  
        '07-May-2022 14:00',  
        '%d-%b-%Y %H:%i'  
    ),  
    2  
);
```

7

);

```
INSERT INTO cruise (  
    cruise_id,  
    cruise_name,  
    cruise_description,  
    ship_code,  
    cruise_departure_datetime,  
    cruise_duration  
) VALUES (  
    3,  
    'New Zealand Delight',  
    'Starts from Melbourne. Cruising in Fiordland National Park. Stops at Dunedin, Lyttelton  
(Christchurch), Wellington, Tauranga (Rotorua), Auckland. Ends at Melbourne.',  
    103,  
    STR_TO_DATE(  
        '16-Apr-2022 9:00',  
        '%d-%b-%Y %H:%i'  
    ),  
    13  
);
```

```
INSERT INTO cruise(  
    cruise_id,  
    cruise_name,  
    cruise_description,  
    ship_code,  
    cruise_departure_datetime,  
    cruise_duration  
)  
VALUES(  
    5,  
    'Brisbane to Hobart',  
    '7 nights at sea from Brisbane to Hobart.',  
    104,  
    STR_TO_DATE(  
        '08-May-2022 10:30',  
        '%d-%b-%Y %H:%i'  
    ),  
    7  
);
```

```
INSERT INTO cruise(  
    cruise_id,  
    cruise_name,  
    cruise_description,  
    ship_code,  
    cruise_departure_datetime,  
    cruise_duration  
)  
VALUES(  
    6,  
    'Hobart to Brisbane',  
    '7 nights at sea from Hobart to Brisbane.',  
    105,  
    STR_TO_DATE(  
        '09-May-2022 10:30',  
        '%d-%b-%Y %H:%i'  
    ),  
    7  
);
```

```

        cruise_id,
        cruise_name,
        cruise_description,
        ship_code,
        cruise_departure_datetime,
        cruise_duration
    )
VALUES(
    8,
    'Melbourne to Singapore',
    'Starts from Melbourne. Stops at Adelaide, Albany, Fremantle, Bali and Jakarta. Ends at
Singapore.',
    105,
    STR_TO_DATE(
        '30-Oct-2022 9:30',
        '%d-%b-%Y %H:%i'
    ),
    24
);

```

```

INSERT INTO cabin(
    ship_code,
    cabin_no,
    cabin_capacity,
    cabin_class
)
VALUES(110, 1001, 4, 'I');
INSERT INTO cabin(
    ship_code,
    cabin_no,
    cabin_capacity,
    cabin_class
)
VALUES(110, 1002, 4, 'O');
INSERT INTO cabin(
    ship_code,
    cabin_no,
    cabin_capacity,
    cabin_class
)
VALUES(110, 2022, 2, 'B');
INSERT INTO cabin(
    ship_code,
    cabin_no,

```



```
        cabin_capacity,  
        cabin_class  
    )  
VALUES(110, 3001, 4, 'S');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(110, 3002, 4, 'S');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(102, 2001, 4, 'O');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(102, 2011, 4, 'I');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(102, 4002, 2, 'S');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(102, 4004, 2, 'S');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class
```

```
)  
VALUES(102, 4033, 3, 'B');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(103, 110, 2, 'O');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(103, 211, 4, 'B');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(104, 142, 4, 'I');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(104, 211, 4, 'O');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(105, 8032, 3, 'O');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(105, 8033, 3, 'O');
```

```
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(105, 9013, 2, 'B');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(105, 10101, 6, 'S');  
INSERT INTO cabin(  
    ship_code,  
    cabin_no,  
    cabin_capacity,  
    cabin_class  
)  
VALUES(105, 10102, 4, 'S');
```

```
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(105, 10102, 'Y');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(105, 10101, 'N');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(105, 9013, 'U');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities
```

```
)  
VALUES(104, 142, 'Y');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(104, 211, 'N');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(103, 110, 'Y');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(103, 211, 'U');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(102, 4004, 'Y');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(102, 4002, 'U');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(102, 2011, 'N');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(110, 1002, 'Y');
```

```
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(110, 2022, 'U');  
INSERT INTO disable_cabin(  
    ship_code,  
    cabin_no,  
    auxiliary_facilities  
)  
VALUES(110, 3001, 'N');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(110, 1001, 'N');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(110, 2022, 'Y');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(110, 3001, 'U');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(102, 2001, 'U');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(102, 2011, 'N');  
INSERT INTO smoking_cabin(  
    ship_code,
```

```
        cabin_no,  
        ashtrays  
    )  
VALUES(103, 110, 'U');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(103, 211, 'N');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(104, 142, 'Y');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(104, 211, 'N');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(105, 8033, 'U');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(105, 9013, 'N');  
INSERT INTO smoking_cabin(  
    ship_code,  
    cabin_no,  
    ashtrays  
)  
VALUES(105, 10101, 'Y');  
  
INSERT INTO passenger (  
    passenger_id,  
    passenger_fname,
```

```

        passenger_lname,
        passenger_dob,
        passenger_gender,
        passenger_contact
    ) VALUES (
        89,
        'Smith',
        'Jackson',
        STR_TO_DATE('07-Oct-1978', '%d-%b-%Y'),
        'M',
        '0411224509'
    );
INSERT INTO passenger (
    passenger_id,
    passenger_fname,
    passenger_lname,
    passenger_dob,
    passenger_gender,
    passenger_contact
) VALUES (
    10,
    'Smith',
    'Harishi',
    STR_TO_DATE('10-Sep-2014', '%d-%b-%Y'),
    'F',
    NULL
);
INSERT INTO passenger (
    passenger_id,
    passenger_fname,
    passenger_lname,
    passenger_dob,
    passenger_gender,
    passenger_contact
) VALUES (
    87,
    'Luna',
    'Bob',
    STR_TO_DATE('10-Sep-1989', '%d-%b-%Y'),
    'M',
    '0411220912'
);
INSERT INTO passenger (
    passenger_id,

```

```

        passenger_fname,
        passenger_lname,
        passenger_dob,
        passenger_gender,
        passenger_contact
    ) VALUES (
        83,
        'Kevin',
        'Harry',
        STR_TO_DATE('10-Sep-1989', '%d-%b-%Y'),
        'M',
        '0411220756'
    );
INSERT INTO passenger (
    passenger_id,
    passenger_fname,
    passenger_lname,
    passenger_dob,
    passenger_gender,
    passenger_contact
) VALUES (
    70,
    'Jack',
    'Frank',
    STR_TO_DATE('15-Sep-2011', '%d-%b-%Y'),
    'M',
    NULL
);
INSERT INTO passenger (
    passenger_id,
    passenger_fname,
    passenger_lname,
    passenger_dob,
    passenger_gender,
    passenger_contact
) VALUES (
    79,
    'Potter',
    'Lilly',
    STR_TO_DATE('27-Jun-1991', '%d-%b-%Y'),
    'M',
    '0411220196'
);
INSERT INTO passenger (

```



```

        passenger_id,
        passenger_fname,
        passenger_lname,
        passenger_dob,
        passenger_gender,
        passenger_contact
    ) VALUES (
        60,
        'Jesse',
        'Knight',
        STR_TO_DATE('15-Nov-2019', '%d-%b-%Y'),
        'F',
        NULL
    );
INSERT INTO passenger (
    passenger_id,
    passenger_fname,
    passenger_lname,
    passenger_dob,
    passenger_gender,
    passenger_contact
) VALUES (
    74,
    'Herry',
    'Smith',
    STR_TO_DATE('27-Dec-1993', '%d-%b-%Y'),
    'F',
    '0411220023'
);
INSERT INTO passenger (
    passenger_id,
    passenger_fname,
    passenger_lname,
    passenger_dob,
    passenger_gender,
    passenger_contact
) VALUES (
    50,
    'Coco',
    'Mavry',
    STR_TO_DATE('15-Jan-2023', '%d-%b-%Y'),
    'F',
    NULL
);

```

```

INSERT INTO passenger (
    passenger_id,
    passenger_fname,
    passenger_lname,
    passenger_dob,
    passenger_gender,
    passenger_contact
) VALUES (
    65,
    'Chen',
    'Yao',
    STR_TO_DATE('27-Sep-1996', '%d-%b-%Y'),
    'F',
    '0411224104'
);

```

```

INSERT INTO manifest(
    manifest_id,
    passenger_id,
    cruise_id,
    manifest_board_datetime,
    ship_code,
    cabin_no
)
VALUES(1, 10, 2, NULL, 103, 110);

```

```

INSERT INTO manifest(
    manifest_id,
    passenger_id,
    cruise_id,
    manifest_board_datetime,
    ship_code,
    cabin_no
)
VALUES(
    2,
    89,
    4,
    '2022-05-07 09:00:00',
    STR_TO_DATE('07-May-2022 09:00', '%d-%b-%Y %H:%i'),
    110,
    1001
);

```

```

INSERT INTO manifest (
    manifest_id,

```

```

        passenger_id,
        cruise_id,
        manifest_board_datetime,
        ship_code,
        cabin_no
    ) VALUES (
        3,
        70,
        8,
        STR_TO_DATE('29-Oct-2022 22:30', '%d-%b-%Y %H:%i'),
        105,
        8032
    );

INSERT INTO manifest (
    manifest_id,
    passenger_id,
    cruise_id,
    manifest_board_datetime,
    ship_code,
    cabin_no
) VALUES (
    4,
    50,
    3,
    STR_TO_DATE('15-Apr-2022 22:00', '%d-%b-%Y %H:%i'),
    103,
    211
);

INSERT INTO manifest (
    manifest_id,
    passenger_id,
    cruise_id,
    manifest_board_datetime,
    ship_code,
    cabin_no
) VALUES (
    5,
    79,
    4,
    STR_TO_DATE('07-May-2022 08:00', '%d-%b-%Y %H:%i'),
    110,
    2022
);

```

# Query Demonstration

## 1. Join Query

```
SELECT
    *
FROM
    passenger
JOIN manifest ON passenger.passenger_id = manifest.passenger_id;
```

## 2. Aggregation query (functions such as min, max, average or count)

```
SELECT
    *
FROM
    passenger
WHERE
    passenger_dob IN(
        SELECT
            MAX(passenger_dob) AS max_dob
        FROM
            passenger
        UNION ALL
        SELECT
            MIN(passenger_dob) AS min_dob
        FROM
            passenger
    );
```

## 3. Aggregation with group-by (aggregated value for each group)

```
SELECT
    ship_code,
    cabin_class,
    AVG(cabin_capacity) AS avg_capacity
FROM
    cabin
GROUP BY
    ship_code,
    cabin_class
ORDER BY
    ship_code,
    avg_capacity DESC;
```

## 4. Delete operation with Cascade

```
DELETE
FROM
    manifest
WHERE
    manifest_id = 1;
```

## 5. Update operation

```
UPDATE
  passenger
SET
  passenger_contact = '0469987230'
WHERE
  passenger_id = 65;
```