SQL Assignment 1 Michael Houmann (MySQL)

**Simple Queries**

1. List all data about all hotels.

SELECT \* FROM ‘hotel’;

1. List all data about all hotels in Roskilde.

SELECT \* FROM ‘hotel’ WHERE ‘Address’ LIKE ‘%Roskilde’;

1. List names and addresses of all guests from Roskilde.

SELECT ‘Name’, ‘Address’ FROM ‘guest’ WHERE ‘Address’ LIKE ‘%4000%’;

1. List names and addresses of all guests from Roskilde sorted in alphabetic order by name.

SELECT ‘Name’, ‘Address’ FROM ‘guest’ WHERE ‘Address’ LIKE ‘%4000%’ ORDER BY ‘Name’;

1. List all double rooms with a price less than 200 pr. night.

SELECT \* FROM ‘room’ WHERE (Types = ‘D’) AND (‘Price’ <= 200);

1. List all double rooms or family rooms with a price less than 400 pr. night.

SELECT \* FROM ‘room’ WHERE ((‘Types = ‘D’ OR ‘TYPES’ = ‘F’)) AND (PRICE <= 400);

1. List all double rooms or family rooms with a price less than 400 pr. night sorted in ascending order by price.

SELECT \* FROM ‘room’ WHERE ((‘Types = ‘D’ OR ‘TYPES’ = ‘F’)) AND (PRICE <= 400) ORDER BY ‘Price’;

1. List all guests with a name starting with 'G'.

SELECT \* FROM ‘guest’ WHERE ‘Name’ LIKE ‘G%’;

**Aggregate functions**

1. How many hotels are there?

SELECT COUNT(‘Hotel\_No’) FROM ‘hotel’;

1. How many hotels are there in Roskilde?

SELECT COUNT(‘Hotel\_No’) FROM ‘hotel’ WHERE ‘Address’ LIKE ‘%Roskilde’;

1. What is the average price of a room?

SELECT AVG(‘PRICE’) FROM ‘room’;

1. What is the average price of a single room?

SELECT AVG (‘Price’) FROM ‘room’ WHERE ‘Types’ = ‘S’;

1. What is the average price of a double room?

SELECT AVG (‘Price’) FROM ‘room’ WHERE ‘Types’ = ‘D’;

1. What is the total income pr. night for all double rooms?

SELECT SUM(‘Price’) FROM ‘room’ WHERE ‘Types’ = ’D’;

[SELECT](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/select.html) [SUM](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_sum)(`Price`) FROM `room` WHERE `Types` = 'D'

15. How many different guests have made bookings in March?

[SELECT](http://localhost/phpmyadmin/url.php?url=http://dev.mysql.com/doc/refman/5.5/en/select.html) [COUNT](http://localhost/phpmyadmin/url.php?url=http://dev.mysql.com/doc/refman/5.5/en/group-by-functions.html#function_count)(DISTINCT `Guest\_No`) AS 'Bookings in March' FROM booking WHERE(MONTH(Date\_From)) = 3;

**Grouping**

1. List the number of rooms for each hotel.

SELECT ‘Hotel\_No’, COUNT(‘Room\_No’) FROM ‘room’ GROUP BY ‘Hotel\_No’;

1. What is the number of bookings for each hotel in this month?

SELECT ‘Hotel\_No’, COUNT(‘BOOKING\_id’) FROM ‘booking’ WHERE (MONTH(‘Date\_From’)) = (MONTH(CURDATE())) GROUP BY ‘Hotel\_No’;

**Populating & updating tables**

1. Insert new guests.

INSERT INTO `guest` (`Guest\_No`, `Name`, `Address`) VALUES ('31', 'En Mand', 'EnVej 12, 9999 EnBy');

1. Insert a new hotel.

INSERT INTO `hotel` (`Hotel\_No`, `Name`, `Address`) VALUES (NULL, 'Hotel D’Angleterre', 'Kongens Nytorv 34, 1050 København K');

1. Insert rooms in the new hotel.

INSERT INTO `room` (`Room\_No`, `Hotel\_No`, `Types`, `Price`) VALUES ('1', '8', 'S', '300'), ('2', '8', 'D', '600');

1. Insert bookings.

INSERT INTO `booking` (`Booking\_id`, `Hotel\_No`, `Guest\_No`, `Date\_From`, `Date\_To`, `Room\_No`) VALUES (NULL, '8', '31', '2017-02-20', '2017-02-21', '2');

22.Increase the price for all rooms by 5%.

UPDATE ‘room’ SET ‘Price’ = (‘Price’ \* 1.05)