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Guesthouse coursework

INF08104 DATABASE SYSTEMS

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# Section 1

## Question 1

http://puu.sh/rAAwZ/31f78d4df0.png

SELECT

booking\_date, nights

FROM

booking

WHERE

guest\_id = 1183

## Question 6



SELECT

SUM((nights \* amount)) AS 'Total Amount'

FROM rate

JOIN

booking ON (rate.room\_type = booking.room\_type\_requested AND rate.occupancy = booking.occupants)

JOIN

guest ON (guest.id = booking.guest\_id)

WHERE

last\_name = "Cadbury" AND first\_name = "Ruth"

GROUP BY guest\_id

## Question 7

http://puu.sh/rN90G/e053c9374d.png

SELECT

SUM((rate.amount \* booking.nights) + extra.amount) AS 'Rate Amount'

FROM booking

JOIN

rate ON (rate.room\_type = booking.room\_type\_requested AND rate.occupancy = booking.occupants)

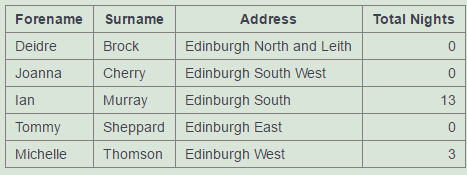
JOIN

extra ON (booking.booking\_id = extra.booking\_id)

WHERE booking.booking\_id = 5128

GROUP BY booking.booking\_id

## Question 8



SELECT

first\_name AS Forename, last\_name AS Surname, address AS Address, coalesce(SUM(nights),0) AS 'Total Nights' FROM booking

RIGHT JOIN

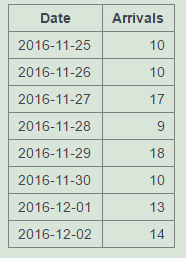
guest ON (guest.id = booking.guest\_id)

WHERE address LIKE ('%Edinburgh%')

GROUP BY guest\_id, address, first\_name, last\_name

ORDER BY last\_name, first\_name

## Question 9



SELECT

booking\_date AS Date, SUM(occupants) AS "Arrivals"

FROM booking

WHERE

booking\_date BETWEEN "2016-11-25" AND "2016-12-02"

GROUP BY booking\_date

# Section 2

## Entity Relationship Diagram



## Add Payment Table

CREATE TABLE payment\_type

(

id INT(3) NOT NULL PRIMARY KEY,

type VARCHAR(50) NOT NULL

);

CREATE TABLE payments

(

id int(11) NOT NULL PRIMARY KEY,

booking\_id INT(11) NOT NULL,

type\_id INT(3) NOT NULL,

date DATE NOT NULL,

amount FLOAT NOT NULL,

FOREIGN KEY(booking\_id) REFERENCES booking(booking\_id),

FOREIGN KEY (type\_id) REFERENCES payment\_type(id)

);

ALTER TABLE booking

ADD COLUMN payment\_id int(11),

ADD CONSTRAINT `payment\_id` FOREIGN KEY (`payment\_id`)

REFERENCES `payments`(`id`);

INSERT INTO payment\_type

(id, type)

VALUES

('1', 'Debt Card'),

('2', 'Cash');

## Add Card Details

UPDATE guest SET ccnum='1345678903241257'

WHERE id =1343;

UPDATE guest SET ccnum='6784325690834789'

WHERE id=1597;

## Populate Payment Table

INSERT INTO payments

(id, booking\_id, type\_id, date, amount)

VALUES

('53601', '5360', '1', '2016-12-11', 216),

('53591', '5359', '1', '2016-11-20', 288),

('53592', '5359', '2', '2016-11-27', 49.06);

UPDATE booking

SET payment\_id = '53601'

WHERE booking\_id = 5360;

UPDATE booking

SET payment\_id = '53591'

WHERE booking\_id = 5359;

## VAT Add

ALTER TABLE extra

ADD COLUMN VAT float;

ALTER TABLE extra

ADD COLUMN excl\_vat float;

ALTER TABLE extra

DROP column total;

UPDATE extra

SET VAT =

extra.amount(extra.amount / 1.20))

WHERE

extra.description LIKE "Phone%";

UPDATE extra

SET excl\_vat = extra.amount - Vat;

ALTER TABLE rate

ADD COLUMN vat float;

ALTER TABLE rate

ADD COLUMN excl\_vat float;

UPDATE rate

SET vat = (amount -(rate.amount / 1.20));

UPDATE rate

SET excl\_vat = amount - vat