**Candidate Name:**

**Method or job site used to reach this form:**

CREATE TABLE CUSTOMER  
(  
 [CUSTOMER\_ID] INT IDENTITY(1, 1) PRIMARY KEY,  
 [FIRST\_NAME] VARCHAR(50),  
 [LAST\_NAME] VARCHAR(50),  
 [EMAIL\_ADDRESS] VARCHAR(100),  
 [CREATED\_AT] DATETIME,  
 [UPDATED\_AT] DATETIME,  
 [TOTAL\_SALES] DECIMAL(15, 4)  
)

1. Given the table above, write a query to identify and remove records with a duplicate email address keeping the last updated record
2. Explain or write the syntax of two ways to enforce that the table cannot contain duplicate email addresses
3. Write a query that finds the most common first name along with how many times it occurs

A screenshot of a computer

Description automatically generated

1. What is this image of and give a brief explanation of what it is used for?

**public** **abstract** **class** **Person**  
{  
 **public** **string** FirstName { **get**; **set**; }  
 **public** **string** LastName {**get**; **set**; }  
}  
  
**public** **class** **Customer** : **Person**  
{  
 **public** **string** EmailAddress {**get**; **set**;}  
 **public** DateTime? CreatedAt {**get**; **set**;}  
 **public** DateTime? UpdatedAt {**get**; **set**;}  
 **public** **decimal** TotalSales  
}

1. Given the classes above, what would be the result of this line of code

Customer Customer = new Person();

1. What does the question mark (?) indicate on the DateTime in the Customer class?

Customer customer1 = new Customer();  
Customer customer2 = customer1;  
customer1.FirstName = “John”;  
Console.WriteLine(customer2.FirstName);

1. What is the result output of above?

{  
 "orders": [  
 {  
 "id": 111111111111,  
 "created\_at": "2023-11-03T15:23:25-04:00",  
 "updated\_at": "2023-11-03T15:23:35-04:00",  
 "email": "programming@rapidpos.com",  
 "location\_id": 12313,  
 "order\_number": 1253,  
 "total\_price": 58.00,  
 "total\_tax": 0.84,  
 "billing\_address": {  
 "name": "John Smith",  
 "address1": "123 Main Street",  
 "city": "Colorado Springs",  
 "zip": "80911",  
 "province": "Colorado",  
 "country": "United States",  
 "country\_code": "US"  
 },  
 "shipping\_address": {  
 "name": "John Smith",  
 "address1": "123 Main Street",  
 "city": "Colorado Springs",  
 "zip": "80911",  
 "province": "Colorado",  
 "country": "United States",  
 "country\_code": "US"  
 },  
 "customer": {  
 "id": 2222222222222,  
 "email": "programming@rapidpos.com",  
 "first\_name": "John",  
 "last\_name": "Smith"  
 },  
 "line\_items": [  
 {  
 "id": 33333333333333,  
 "fulfillment\_status": "fulfilled",  
 "name": "Test Product",  
 "price": 60.00,  
 "product\_id": 444444444444,  
 "quantity": 1,  
 "sku": "12345",  
 "tax\_amount": 0.84,  
 "total\_discount": 2.00  
 }  
 ],  
 "payment\_details": {  
 "credit\_card\_company": "Visa",  
 "amount": "67.74"  
 }  
 }  
 ]  
}

1. Generate SQL CREATE TABLE scripts that correspond to the JSON above. Make sure to include any data types, table constraints, defaults, primary and foreign keys that you think would apply.