**Group ID:** 22 **Names:** Sean King, Dmitry Stepin, Ryan Cockins **Student IDs:** 82425468, 79695197, 92859394 **CS122A HW3**

Query 1:

**σ gender = 'F' ∧ address\_city = 'Irvine' (Customer)**

Results 1:

\*All attributes are Customer attributes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **cid** | **SSN** | **gender** | **email** | **street** | **city** | **state** | **Zip code** |
| 2 | 582902877 | F | gimodc@qg5a543.com | 9091 Watermarke Place | Irvine | CA | 92612 |
| 6 | 830930154 | F | [2ldx.6l9@pk11l2s.com](mailto:2ldx.6l9@pk11l2s.com) | 90915241 Laguna Canyon Road | Irvine | CA | 92618 |
| 19 | 22152601 | F | [5-.@rblrzxw-ql9c.com](mailto:5-.@rblrzxw-ql9c.com) | 90931 Creek Road | Irvine | CA | 92604 |

Query 2:

**π name (σ lid = 113 (Dish))**

Results 2:

|  |
| --- |
| **Dish.name** |
| Grilled Free Range Chicken |
| Grilled Steak |
| Oven Baked Salmon |
| Tempura |

Query 3:

**π card\_number, expr\_date (σ cid = 16 (Credit\_Card))**

Results 3:

|  |  |
| --- | --- |
| **Credit\_Card.card\_number** | **Credit\_Card.expr\_date** |
| 67718812245978283 | 201803 |

Query 4:

**π gender, address\_street, address\_city**

**(Customer join (π cid ((σ name = 'wafu steak' (DishOrder\_Contains\_Dish)) join DishOrder)))**

Results 4:

|  |  |  |
| --- | --- | --- |
| **Customer.gender** | **Customer.address\_street** | **Customer.address\_city** |
| F | 90917772 17th Street | Tustin |

Query 5:

**X = π cid (σ flight\_number = 'N124' ∧ projected\_departure\_datetime = '2015-09-07 08:21:00' ∧ quantity = 1 (Customer\_Reserves\_Flight))**

**π name, quantity ((π oid (X join DishOrder)) join DishOrder\_Contains\_Dish)**

Results 5:

|  |  |
| --- | --- |
| **DishOrder\_Contains\_Dish.name** | **DishOrder\_Contains\_Dish.quantity** |
| Hummus | 10 |
| The Burger Combo | 5 |
| The Karma Burger | 3 |

Query 6:

**X = Customer join (π cid (Customer) - π cid (DishOrder))**

**π cid, email (X)**

Results 6:

|  |  |
| --- | --- |
| **Customer.cid** | **Customer.email** |
| 4 | r1d0800121@8w-4lb.com |
| 5 | eu3@4l4ligbm2d4.com |
| 6 | 2ldx.6l9@pk11l2s.com |
| 7 | ijvbv5hx@e0z8o6w.com |
| 8 | iz4tvg5j0e.@otiw34ymv68z.com |
| 9 | xhrh8pptf0bm2@ki4jwmsiek.com |
| 10 | 93nwu\_g3pow65d@0zekopshz.com |
| 11 | gmzs@hdm9q8rpd.com |
| 13 | 42-8b8@l0m1bttskf3.com |
| 15 | 9zsiot3@8aab4f3tj.com |
| 16 | 4ikmvae@xsvx5etrv2.com |
| 17 | s3et50zvq-9b1@dlayle.com |
| 18 | 2-z6sf@oh-sz1whst6.com |
| 19 | 5-.@rblrzxw-ql9c.com |
| 20 | iuxh@al8wsoem.com |

Query 7:

**X = π cid, lid (DishOrder)**

**Y = π lid (Lounge)**

**(π cid, ssn Customer) join (X ÷ Y)**

Results 7:

|  |  |
| --- | --- |
| **Customer.cid** | **Customer.snn** |
| 1 | 988843736 |

Query 8:

**A = π ssn, address\_city (Pilot)**

**B = π ssn, address\_city (MaintenanceEngineer)**

**C = π ssn, address\_city (OperationStaff)**

**D = π ssn, address\_city (FlightAttendant)**

**π ssn (σ address\_city = 'New Jersey' (A∪B∪C∪D))**

Results 8:

None

Query 9:

**SELECT DISTINCT cid**

**FROM Customer\_Reserves\_Flight**

Results 9:

|  |
| --- |
| **Customer\_Reserves\_Flight.cid** |
| 1 |
| 13 |
| 14 |

Query 10:

**SELECT \***

**FROM Customer**

**WHERE address\_street LIKE '%Warner Avenue'**

Results 10:

\*All attributes are Customer attributes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **cid** | **SSN** | **gender** | **email** | **street** | **city** | **state** | **Zip code** |
| 7 | 481161938 | F | [ijvbv5hx@e0z8o6w.com](mailto:ijvbv5hx@e0z8o6w.com) | 9091536 East Warner Avenue | Santa Ana | CA | 92705 |
| 8 | 340130873 | M | [iz4tvg5j0e.@otiw34ymv68z.com](mailto:iz4tvg5j0e.@otiw34ymv68z.com) | 9091536 West Warner Avenue | Santa Ana | CA | 92705 |

Query 11:

**SELECT C.cid**

**FROM Customer as C, Customer\_Reserves\_Flight as R, DishOrder as D**

**WHERE C.cid = R.cid AND C.cid = D.cid**

Results 11:

|  |
| --- |
| **C.cid** |
| 1 |
| 14 |

Query 12:

**SELECT L.location**

**FROM Lounge as L, Dish as D**

**WHERE L.lid = D.lid AND (D.name = 'tacos' OR D.name = 'hummus')**

Results 12:

|  |
| --- |
| **L.location** |
| section D32 |
| section D12 |

Query 13:

**((SELECT cid FROM Customer)**

**EXCEPT (SELECT DISTINCT cid FROM DishOrder))**

**EXCEPT (SELECT DISTINCT cid FROM Customer\_Reserves\_Flight)**

Results 13:

|  |
| --- |
| **Customer.cid** |
| 4 |
| 5 |
| 6 |
| 7 |
| 8 |
| 9 |
| 10 |
| 11 |
| 15 |
| 16 |
| 17 |
| 18 |
| 19 |
| 20 |