ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΑΤΤΙΚΗΣ ΤΜΗΜΑ ΜΗΧΑΝΙΚΩΝ ΠΛΗΡΟΦΟΡΙΚΗΣ ΚΑΙ ΥΠΟΛΟΓΙΣΤΩΝ



ΒΑΣΕΙΣ ΔΕΔΟΜΕΝΩΝ ΙΙ

ΣΧΕΔΙΑΣΜΟΣ ΒΑΣΗΣ ΔΕΔΟΜΕΝΩΝ ΤΑΞΙΔΙΩΤΙΚΟΥ ΓΡΑΦΕΙΟΥ



ΠΕΤΡΑΚΗ ΒΑΣΙΛΙΚΗ ΕΥΑΝΘΙΑ

19390193

ΕΡΓΑΣΤΗΡΙΑΚΟ ΤΜΗΜΑ 09 (ΠΕΜΠΤΗ 19:00 – 20:00)

ΒΑΣΕΙΣ ΔΕΔΟΜΕΝΩΝ ΙΙ

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CREATE, INSERT AND SELECT

```
1. DROP DATABASE IF EXISTS ETRAVEL;
2. CREATE DATABASE ETRAVEL;
3. USE ETRAVEL;
4. -- CREATING TABLE FOR THE WAYS OF TRANSPORTATION --
5. CREATE TABLE TRANSPORT(
       TID INT (2) NOT NULL AUTO INCREMENT,
7.
       TNAME VARCHAR (14) NOT NULL UNIQUE,
8.
       PRIMARY KEY (TID)
9.);
10. -- INSERTING VALUES INTO TABLE TRANSPORT --
11. INSERT INTO TRANSPORT
12. VALUES(1, "AIRPLANE");
INSERT INTO TRANSPORT(TNAME)
14. VALUES("BUS"),
15.
         ("TRAIN"),
        ("SHIP");
16.
17. -- CREATING TABLE FOR CATEGORIES --
18. CREATE TABLE CATEGORIES(
19.
        CID INT (2) NOT NULL AUTO INCREMENT,
20.
        CNAME VARCHAR (14) NOT NULL UNIQUE,
21.
        PRIMARY KEY (CID)
22. );
23. -- INSERTING VALUES INTO TABLE CATEGORIES --
24. INSERT INTO CATEGORIES
25. VALUES(1, "WINTER");
26. INSERT INTO CATEGORIES (CNAME)
27. VALUES("ROMANTIC"),
        ("SUMMER"),
28.
29.
        ("FAMILY");
    -- CREATING THE TABLE FOR THE TOURIST PACKAGES --
31. CREATE TABLE PACKAGES(
        PID INT (2) NOT NULL AUTO_INCREMENT,
32.
33.
        PLOC VARCHAR(30),
34.
        BDATE DATE NOT NULL,
35.
        EDATE DATE NOT NULL,
36.
        CATEGORY VARCHAR(14) NOT NULL,
        TRANSP VARCHAR(14) NOT NULL,
37.
38.
        COST DECIMAL(10, 2),
39.
        PRIMARY KEY (PID),
        FOREIGN KEY(TRANSP) REFERENCES TRANSPORT(TNAME),
40.
41.
        FOREIGN KEY(CATEGORY) REFERENCES CATEGORIES(CNAME)
42.);
43. INSERT INTO PACKAGES
44. VALUES(
```

```
45.
              1,
46.
              "VENICE",
              "2022-02-10",
47.
48.
              "2022-02-15",
              "ROMANTIC",
49.
              "AIRPLANE",
50.
51.
              1100
52.
         );
53.
    INSERT INTO PACKAGES (PLOC, BDATE, EDATE, CATEGORY, TRANSP, COST)
54. VALUES (
              "BANSKO",
55.
              "2021-12-19",
56.
              "2021-12-21",
57.
58.
              "WINTER",
              "BUS",
59.
              900
60.
61.
         ),
62.
63.
              "PRAGUE",
              "2021-12-23",
64.
              "2021-12-26",
65.
              "FAMILY",
66.
              "AIRPLANE",
67.
              2000
68.
69.
         ),
70.
71.
              "PALMA",
              "2022-06-10",
72.
              "2022-06-30",
73.
              "SUMMER",
74.
              "AIRPLANE",
75.
76.
              7000
77.
         ),
78.
79.
              "PALMA",
              "2022-06-10",
80.
81.
              "2022-06-30",
              "SUMMER",
82.
              "SHIP",
83.
84.
              4600
85.
         ),
86.
87.
              "PARIS",
              "2021-12-29",
88.
              "2022-01-02",
89.
90.
              "ROMANTIC",
              "AIRPLANE",
91.
92.
              4000
93.
         ),
```

```
94.
         (
95.
             "PARIS",
             "2021-12-29",
96.
97.
             "2022-01-02",
             "FAMILY",
98.
             "AIRPLANE",
99.
             6000
100.
101.
         ),
102.
             "ALPS",
103.
104.
             "2022-01-15",
             "2022-01-19",
105.
106.
             "WINTER",
             "AIRPLANE",
107.
108.
             3000
109.
         ),
110.
111.
             "ARACHOVA",
             "2022-01-20",
112.
113.
             "2022-01-23",
             "WINTER",
114.
115.
             "BUS",
116.
             300
117.
         );
118. -- CREATING THE TABLE FOR THE CUSTOMERS --
119. CREATE TABLE CUSTOMERS(
120.
         CUSTID INT (3) NOT NULL AUTO INCREMENT,
121.
         CSNAME VARCHAR (50) NOT NULL,
122.
         CADRESS VARCHAR (60) NOT NULL,
123.
         CPHONE VARCHAR (11) NOT NULL,
124.
         CEMAIL VARCHAR(255) NOT NULL,
125.
         CPACK INT (2) NOT NULL,
126.
         PRIMARY KEY(CUSTID),
127.
         FOREIGN KEY(CPACK) REFERENCES PACKAGES(PID)
128.);
129. INSERT INTO CUSTOMERS
130. VALUES(
131.
             "Alfonso Santana",
132.
             "2137 Ipsum St.",
133.
134.
             "6999881132",
135.
             "alfonsosantana@aol.com",
136.
137.
         );
138. INSERT INTO CUSTOMERS (CSNAME, CADRESS, CPHONE, CEMAIL, CPACK)
139. VALUES (
             "Constance Davidson",
140.
141.
             "9676 Cras Av.",
142.
             "2226148298",
```

```
143.
             "constancedavidson@outlook.com",
144.
145.
         ),
146.
             "Leandra Beach",
147.
             "1478 Nunc, Street",
148.
             "2450974482",
149.
150.
             "leandrabeach@protonmail.com",
151.
152.
         ),
153.
             "Chase Tyler",
154.
155.
             "Ap #379-6580 Auctor. Rd.",
             "6944467445",
156.
             "chasetyler@yahoo.com",
157.
158.
159.
         ),
160.
             "Simone Harris",
161.
162.
             "Ap #723-9708 Vitae St.",
             "2628461581",
163.
164.
             "simoneharris@google.com",
165.
166.
         ),
167.
             "Lars Conley",
168.
             "Ap #220-6316 Odio. Road",
169.
             "6922627264",
170.
             "larsconley7819@google.com",
171.
172.
173.
         ),
174.
             "Latifah Hendricks",
175.
176.
             "9597 Turpis Avenue",
177.
             "2932504105",
178.
             "latifahhendricks@protonmail.com",
179.
180.
         ),
181.
182.
             "Dean Kirby",
             "862-5583 Egestas, Road",
183.
             "2657681522",
184.
185.
             "deankirby@hotmail.com",
186.
             3
187.
         ),
188.
             "Olympia Morse",
189.
             "Ap #126-6932 Libero. Road",
190.
             "2778856521",
191.
```

```
192.
             "olympiamorse@google.com",
193.
194.
         ),
195.
             "Jarrod Harmon",
196.
             "Ap #350-9911 Elit St.",
197.
             "6966751831",
198.
199.
             "jarrodharmon@hotmail.com",
200.
201.
         ),
202.
             "Chloe Cline",
203.
204.
             "429-4974 Nascetur St.",
             "2775115683",
205.
             "chloecline@yahoo.com",
206.
207.
208.
         );
209. -- EVERY TABLE'S CONTENTS --
210. SELECT *
211. FROM CATEGORIES
212. ORDER BY CID ASC;
213. SELECT *
214. FROM TRANSPORT
215. ORDER BY TID ASC;
216. SELECT *
217. FROM PACKAGES
218. ORDER BY PID ASC;
219. SELECT *
220. FROM CUSTOMERS
221. ORDER BY CUSTID ASC;
```

	CID	CNAME
•	1	WINTER
	2	ROMANTIC
	3	SUMMER
	4	FAMILY
	NULL	NULL

	TID	TNAME
•	1	AIRPLANE
	2	BUS
	3	TRAIN
	4	SHIP
	NULL	NULL

HULL	NULL	NULL	NULL	NULL	NULL	NULL
9	ARACHOVA	2022-01-20	2022-01-23	WINTER	BUS	300.00
8	ALPS	2022-01-15	2022-01-19	WINTER	AIRPLANE	3000.00
7	PARIS	2021-12-29	2022-01-02	FAMILY	AIRPLANE	6000.00
6	PARIS	2021-12-29	2022-01-02	ROMANTIC	AIRPLANE	4000.00
5	PALMA	2022-06-10	2022-06-30	SUMMER	SHIP	4600.00
4	PALMA	2022-06-10	2022-06-30	SUMMER	AIRPLANE	7000.00
3	PRAGUE	2021-12-23	2021-12-26	FAMILY	AIRPLANE	2000.00
2	BANSKO	2021-12-19	2021-12-21	WINTER	BUS	900.00
1	VENICE	2022-02-10	2022-02-15	ROMANTIC	AIRPLANE	1100.00
PID	PLOC	BDATE	EDATE	CATEGORY	TRANSP	COST

	CUSTID	CSNAME	CADRESS	CPHONE	CEMAIL	CPACK
•	1	Alfonso Santana	2137 Ipsum St.	6999881132	alfonsosantana@aol.com	4
	2	Constance Davidson	9676 Cras Av.	2226148298	constancedavidson@outlook.com	7
	3	Leandra Beach	1478 Nunc, Street	2450974482	leandrabeach@protonmail.com	6
	4	Chase Tyler	Ap #379-6580 Auctor. Rd.	6944467445	chasetyler@yahoo.com	2
	5	Simone Harris	Ap #723-9708 Vitae St.	2628461581	simoneharris@google.com	8
	6	Lars Conley	Ap #220-6316 Odio. Road	6922627264	larsconley7819@google.com	5
	7	Latifah Hendricks	9597 Turpis Avenue	2932504105	latifahhendricks@protonmail.com	1
	8	Dean Kirby	862-5583 Egestas, Road	2657681522	deankirby@hotmail.com	3
	9	Olympia Morse	Ap #126-6932 Libero, Road	2778856521	olympiamorse@google.com	3
	10	Jarrod Harmon	Ap #350-9911 Elit St.	6966751831	jarrodharmon@hotmail.com	8
	11	Chloe Cline	429-4974 Nascetur St.	2775115683	chloedine@yahoo.com	9
	NULL	NULL	NULL	NULL	HULL	NULL

Select

- 1. -- ERWTHMA I --
- 2. SELECT CATEGORIES.CID "CATEGORY ID",
- CATEGORIES.CNAME "CATEGORY NAME",
- COUNT(PACKAGES.CATEGORY) "NUMBER OF PACKAGES PER CATEGORY"
- 5. FROM CATEGORIES,
- PACKAGES
- 7. WHERE CATEGORIES.CNAME = PACKAGES.CATEGORY
- 8. GROUP BY CATEGORIES.CID
- ORDER BY CATEGORIES.CID ASC;

	CATEGORY ID	CATEGORY NAME	NUMBER OF PACKAGES PER CATEGORY
•	1	WINTER	3
	2	ROMANTIC	2
	3	SUMMER	2
	4	FAMILY	2

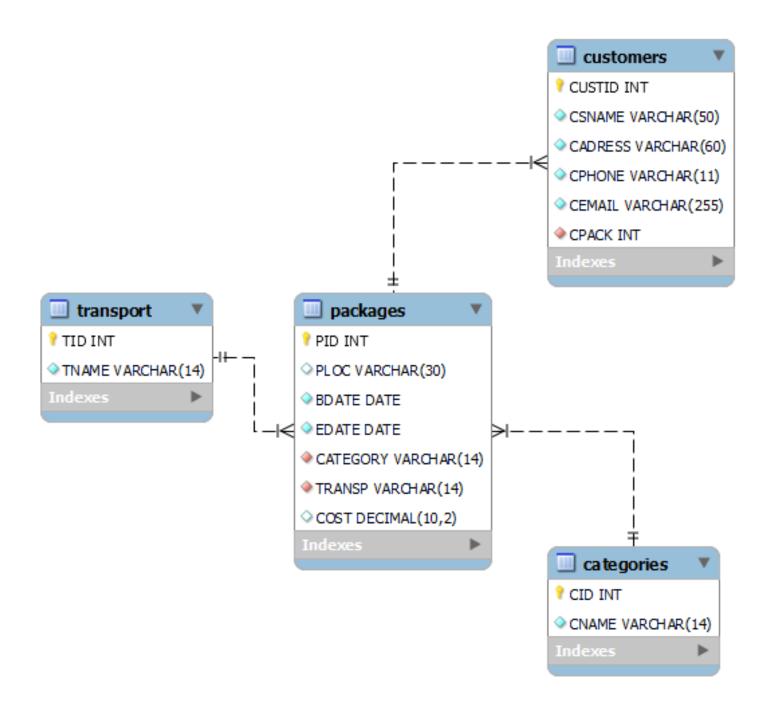
- 1. -- ERWTHMA II --
- 2. SELECT TRANSPORT.TID "TRANSPORT ID",
- 3. TRANSPORT.TNAME "TRANSPORTATION METHODS",
- COUNT(PACKAGES.TRANSP) "NUMBER OF PACKAGES PER TRANSPORTATION METHOD"
- 5. FROM TRANSPORT,
- PACKAGES
- 7. WHERE TRANSPORT.TNAME = PACKAGES.TRANSP
- 8. GROUP BY TRANSPORT.TID
- ORDER BY TRANSPORT.TID ASC;

	TRANSPORT ID	TRANSPORTATION METHODS	NUMBER OF PACKAGES PER TRANSPORTATION METHOD
•	1	AIRPLANE	6
	2	BUS	2
	4	SHIP	1

- 1. -- ERWTHMA III --
- 2. SELECT PACKAGES.PID "PACKAGE ID",
- CUSTOMERS.CSNAME "CUSTOMER NAME",
- 4. SUM(COST) "TOTAL COST OF PACKAGE"
- 5. FROM PACKAGES,
- 6. CUSTOMERS
- 7. WHERE PACKAGES.PID = CUSTOMERS.CPACK
- 8. GROUP BY CUSTOMERS.CUSTID
- ORDER BY SUM(COST) DESC;

PACKAGE II	CUSTOMER NAME	TOTAL COST OF PACKAGE
4	Alfonso Santana	7000.00
7	Constance Davidson	6000.00
5	Lars Conley	4600.00
6	Leandra Beach	4000.00
8	Simone Harris	3000.00
8	Jarrod Harmon	3000.00
3	Dean Kirby	2000.00
3	Olympia Morse	2000.00
1	Latifah Hendricks	1100.00
2	Chase Tyler	900.00
9	Chloe Cline	300.00

Entity – Relationship Diagram



VIEWS

<u>Updatable</u>

```
1. -- CREATING AN UPDATABLE VIEW THAT SHOWS WHICH CUSTOMERS CHOSE THE PACKAGES TO
   PALMA --
2. CREATE VIEW PALMA_VIEW (ID, NAME, ADRESS, PHONE, EMAIL, PACK) AS
3. SELECT CUSTID,
4.
       CSNAME,
5.
       CADRESS,
       CPHONE,
6.
7.
       CEMAIL,
       CPACK
9. FROM CUSTOMERS
10. WHERE (
11.
            CPACK = 4
12.
            OR CPACK = 5
13.
        );
14. SELECT *
15. FROM PALMA_VIEW;
```

	ID	NAME	ADRESS	PHONE	EMAIL	PACK
•	1	Alfonso Santana	2137 Ipsum St.	6999881132	alfonsosantana@aol.com	4
	6	Lars Conley	Ap #220-6316 Odio, Road	6922627264	larsconley7819@google.com	5

Non – updatable

- 1. -- CREATING A NON-UPDATABLE VIEW THAT SHOWS WHICH CUSTOMERS CHOSE THE ALPS PACKAGE
- 2. CREATE VIEW ALPS_VIEW (ID, NAME, ADRESS, PHONE, EMAIL, PACK) AS
- 3. SELECT CUSTID,
- 4. CSNAME,
- 5. CADRESS,
- 6. CPHONE,
- 7. CEMAIL,
- 8. CPACK
- 9. FROM CUSTOMERS
- 10. WHERE (CPACK = 8)
- 11. GROUP BY CUSTID;
- 12. SELECT *
- 13. FROM ALPS_VIEW;

	ID	NAME	ADRESS	PHONE	EMAIL	PACK
•	5	Simone Harris	Ap #723-9708 Vitae St.	2628461581	simoneharris@google.com	8
	10	Jarrod Harmon	Ap #350-9911 Elit St.	6966751831	jarrodharmon@hotmail.com	8

Backup



ETRAVELBACKUP.sql (Command Line)