ΤΜΗΜΑ ΗΛΕΚΤΡΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ
& ΜΗΧΑΝΙΚΩΝ ΥΠΟΛΟΓΙΣΤΩΝ
ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΜΑΚΕΔΟΝΙΑΣ
ΠΟΛΥΤΕΧΝΙΚΗ ΣΧΟΛΗ

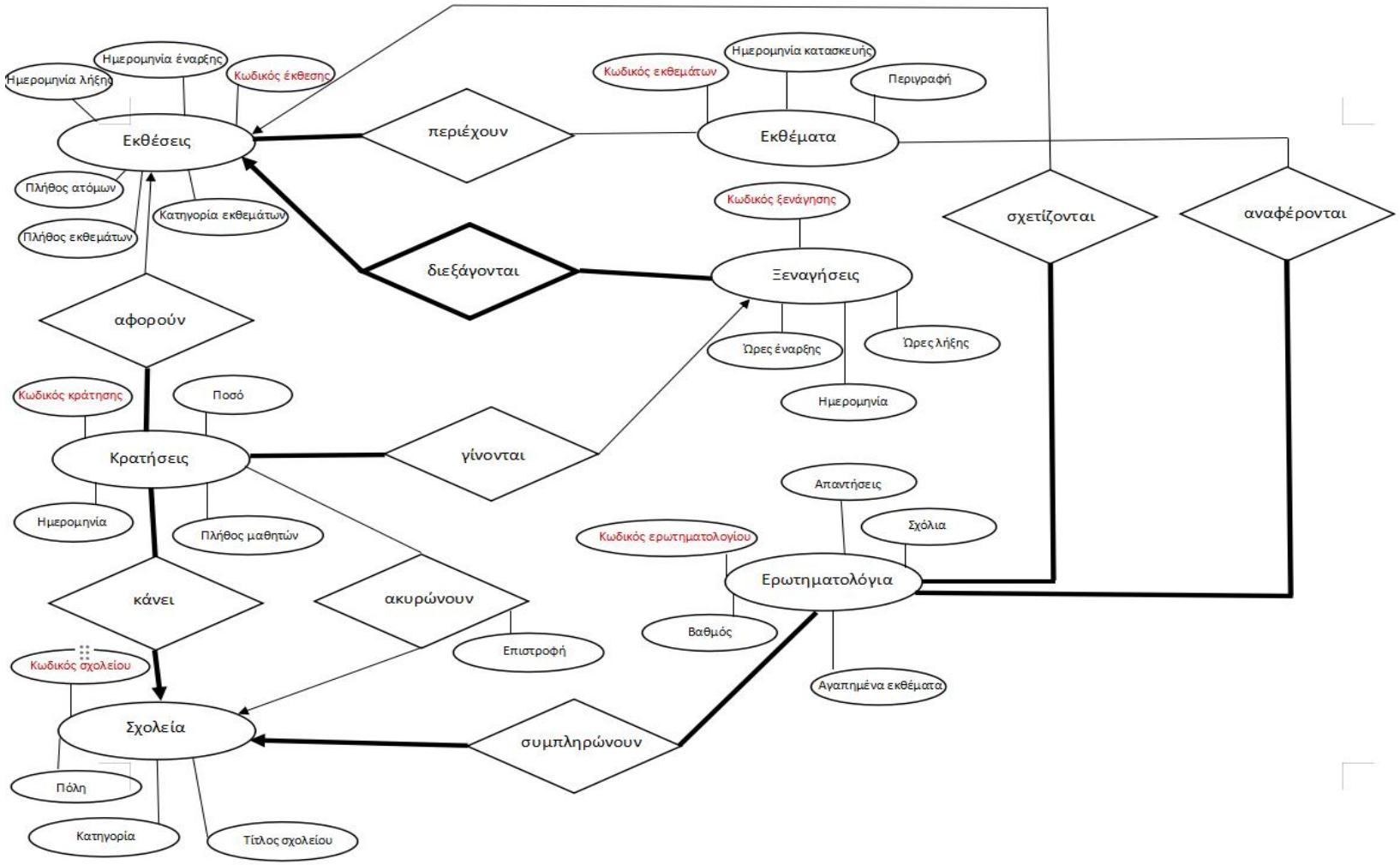
3οΠαραδοτέο

Σταθάκος Ηλίας 2017

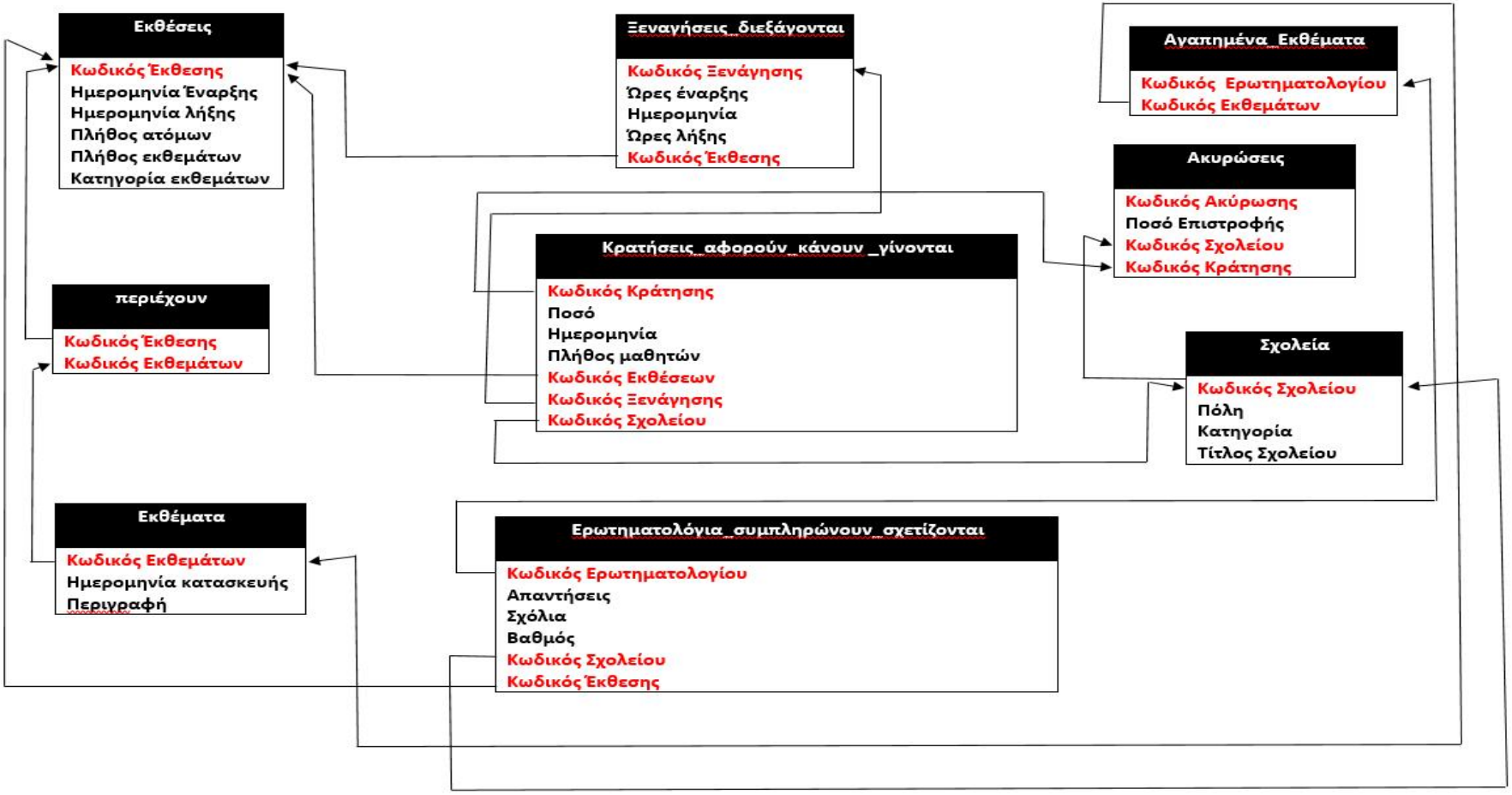
Παπαθανασίου Κωνσταντίνος 2008

Τσότσιος Φίλιππος 1751

Διάγραμμα Οντοτήτων-Συσχετίσεων



Σχεσιακό Διάγραμμα



Σχεσιακή Άλγεβρα

1) $\Pi_{Exhibits\_id,\ Man\_date}$ (Exhibits)

2) $\sigma_{Town=kozani}$ (Schools)

3) Δεν γίνετε, καθώς δεν μπορούμε στην σχεσιακή άλγεβρα να βρούμε πως αρχίζει ένα string

4) Δεν γίνετε, καθώς δεν μπορούμε στην σχεσιακή άλγεβρα να βρούμε χαρακτήρες ή λέξης μέσα σε ένα string

5) $\Pi_{Town}(\sigma_{Schools.Towm=S.Towm\ \wedge\ Schools.school\_id\neq S.school\_id}(Schools \times \rho(S,Schools)))$

6) Δεν γίνετε στην σχεσιακή άλγεβρα να κάνουμε κατά αύξων αριθμό

7) $\Pi_{Title}((\Pi_{school\_id}(Reservations\_Refer\_Do\_Made \bowtie \sigma_{category=Literature \vee category=Painting}(Exhibitions)) - \Pi_{school\_id}(Reservations\_Refer\_Do\_Made \bowtie \sigma_{category=Sculpture}(Exhibitions))) \bowtie Schools)$

8) $\Pi_{Town}(\sigma_{category=primary}(Schools) \bowtie (\Pi_{school\_id}(Reservations\_Refer\_Do\_Made \bowtie \sigma_{category=Literature}(Exhibitions)) \cap \Pi_{school\_id}(Reservations\_Refer\_Do\_Made \bowtie \sigma_{category=Painting}(Exhibitions))))$

9) $\Pi_{exhibits\_num}(\Pi_{exh\_id}(\sigma_{grade>5}(Questions) - \Pi_{exh\_id}(Questions))) \bowtie Exhibitions)$

10) $\Pi_{grade}(\Pi_{exh\_id}(\sigma_{πλήθος>50}(Exhibitions)) \cap \Pi_{exh\_id}(\sigma_{ποσό=50}(κρατήσεις))$

SQL QUERIES

1) SELECT Exhibits_id, Man_date FROM Exhibits

2) SELECT * FROM Schools WHERE Town = 'kozani'

3) SELECT * FROM Schools WHERE Town = 'kozani' AND Category LIKE 'high%'

4) SELECT E.Exhibits_num FROM Reservations_Refer_Do_Made R, Exhibitions E, Schools S WHERE E.Exh_id = R.Exh_id
AND S.School_id = R.School_id AND S.Town LIKE '%new%'

5) SELECT Town, COUNT(*) AS NumTown FROM Schools GROUP BY Town HAVING COUNT(*)>1

6) SELECT * FROM Reservations_Refer_Do_Made R, Schools S WHERE R.School_id = S.School_id AND S.Town = 'kozani' ORDER BY R.Amount ASC

7) SELECT S1.Sch_Title FROM Schools S1, Exhibitions E1, Reservations_Refer_Do_Made R1 WHERE S1.School_id = R1.School_id AND R1.Exh_id = E1.Exh_id AND(E1.Category = 'Literature' OR E1.Category = 'Painting')AND S1.School_id NOT IN (SELECT R2.School_id FROM Exhibitions E2, Reservations_Refer_Do_Made R2 WHERE R2.Exh_id = E2.Exh_id AND E2.Category = 'Sculpture')

8) SELECT S1.Towm FROM Schools S1, Exhibitions E1, Reservations_Refer_Do_Made R1 WHERE S1.School_id = R1.School_id AND R1.Exh_id = E1.Exh_id AND E1.Category = 'Literature' AND S1.School_id IN (SELECT R2.School_id FROM Exhibitions E2, Reservations_Refer_Do_Made R2 WHERE R2.Exh_id = E2.Exh_id AND E2.Category = 'Painting')

9) SELECT E1.Exhibits_num FROM Exhibitions E1, Questionnaire_Fill_Associated Q1 WHERE Q1.Exh_id = E1.Exh_id AND Q1.Grade > 5 AND E1.Exh_id NOT IN (SELECT Q2.Exh_id FROM Questionnaire_Fill_Associated Q2 WHERE Q2.Grade < 3)

10) SELECT Q.Grade FROM Questionnaire_Fill_Associated Q, Reservations_Refer_Do_Made R, Exhibitions E WHERE E.Exh_id = Q.Exh_id AND E.Exh_id = R.Exh_id AND Q.School_id = R.School_id AND E.Exhibits_num > 50 AND R.Amount = 50