

3DB3 Assignment 1

Entity	Attributes	Constraints
Persons : Parent entity set for physicians, nurses and patients	<ol style="list-style-type: none"> 1. <u>PID</u> 2. First Name 3. Last Name 4. Gender 5. Date of Birth 6. Street 7. City 8. Province 9. Postal Code 	<ol style="list-style-type: none"> 1. CHECK constraint on gender as to "male" or "female" 2. PID is unique and distinct
Physicians : Child entity set for Persons	<ol style="list-style-type: none"> 1. Number of years in practice 2. Annual Salary (CAD) 3. Speciality 	
Nurses : Child Schema entity set for Persons	<ol style="list-style-type: none"> 1. Number of years in practice 2. Annual Salary (CAD) 	
Patient : Child entity set for Persons	<ol style="list-style-type: none"> 1. Health Insurance 	<ol style="list-style-type: none"> 1. Check constraint on 'Health Insurance Type' with value of 'public', 'private', or 'self-funded'
Hospital : Entity Set with all hospitals	<ol style="list-style-type: none"> 1. Name 2. Street Address 3. City 4. Annual Budget (CAD) 	<ol style="list-style-type: none"> 1. Hospital name should be unique and distinct
Department : <u>Weak Entity Set</u> with all departments	<ol style="list-style-type: none"> 1. Name 2. Annual Budget 3. Hospital name 	
Phone Numbers : <u>Weak Entity Set</u> with all phone numbers	<ol style="list-style-type: none"> 1. Number 2. Contact Type 	<ol style="list-style-type: none"> 1. Check constraint on 'Contact Type' with values as 'home', 'work', and 'phone'
Medical Tests : <u>Weak Entity Set</u> with all medical tests	<ol style="list-style-type: none"> 1. <u>MTID</u> 2. Name of Test 3. Fee 4. Test Date 5. Results 	<ol style="list-style-type: none"> 1. 'MTID' should be unique and distinct
Drugs : Entity Set with all prescribed drugs	<ol style="list-style-type: none"> 1. <u>Code</u> 2. Name 3. Category 4. Unit Cost 	<ol style="list-style-type: none"> 1. 'Code' should be unique and distinct and have a length of 8

Relationship	Attributes	Constraints
Admit : Relationship between hospitals and patients	1. Admission Date	Many to Many
Prescribe : Ternary Relationship between physicians, drugs and patients	1. Date of Prescription 2. Dosage	Many to Many
Diagnose : Relationship between physicians and patients	1. Disease 2. Date of Diagnosis 3. Prognosis	One Physician, Many Patients
Contain : Relationship between hospitals and departments		Many to Many
Care : Relationship between nurses and patients		Many Nurses, One Patient
Undergo : Relationship between Patients and Medical Tests		One Patient, Many Medical Tests
Has : Relationship between Persons and Phone Numbers		One Person, Many Phone Numbers
Belongs To : Relationship between Nurses, Physicians, and Departments		One Physician, Many Departments, Many Nurses