**Assignment (MS CRM - Technical)**

* **Exam** – It should be Master entity, which holds exam related information
  + **Attributes**
    - Exam Name
* **Subject** - It should be Master entity, which holds subject related information
  + **Attributes**
    - Subject Name
    - Description
    - Total Mark
  + **Relation**
    - It can be associated with one or more **Exam**
* **Applicant** – Use **Contact** Entity to manage Applicant related details
  + **Attributes**
    - First Name
    - Last Name
    - Email Address
    - Phone Number
    - Gender
    - Date of Birth
    - Age
    - Qualification
  + **Validation** 
    - Date of Birth should always less than today’s date
    - Applicant should be created only if applicant is 18+
    - Duplicate applicant should not be created,
      * Criteria1 – First Name, Last Name, Email & Phone
      * Criteria2 - First Name, Last Name & DOB
  + **Requirement**
    - Age should be read only field and auto calculated based on Date of Birth
    - Applicant Age should be auto updated based on current date if Current Date is same as DOB
    - Applicant should receive birthday greetings based on DOB
* **Exam Registration** – It should hold information about **Applicant** and **Exam** for which applicant is registered
  + **Attributes**
    - Applicant
    - Exam
    - Exam Date
  + **Validation**
    - Applicant should not register more than one exam for given year.
  + **Relation**
    - It can be associated with one Applicant
    - It can be associated with one Exam
* **Applicant Exam Details –**
  + **Attributes**
    - Subject (readonly)
    - Exam (readonly)
    - Exam Date (readonly)
    - Total Mark (readonly)
    - Achieved Mark
  + **Requirement** 
    - It should be automatically created based on creation of **Exam Registration** and should link to **Applicant**
    - Exam, Exam Date , Subject and Total Mark should automatically added based on **Exam Registration** details
    - Achieved Mark should not be greater than Total Mark
    - Achieved Mark **Should be editable by only privileged user**
  + **Relation**
    - It can be associated with one Applicant
    - It can be associated with one Exam
    - It can be associated with one Subject
* **Result -** It should automatically create based on creation of **Applicant Exam Details**
  + **Attributes (All field need to be auto calculated & read only)**
    - Exam
    - Exam date
    - Total Mark
    - Total Achieved Mark
    - Outcome(Pass/Fail)
    - Grade
    - % Mark
  + **Requirement**
    - Total Mark & Total Achieved mark should be auto calculated based on **Applicant Exam Details**
    - % Mark should calculate based on Total Mark and Total Achieved mark
    - Outcome should be set to Pass only if % Mark >= 35
    - Grade Should be auto calculated based on % Mark
      * <35 : D
      * 35-50 : C
      * 51-59 : B
      * 60-74 : A
      * 75+ : A+
* **Dashboard**
  + **Top 10 applicant based on % and exam**
  + **Pass/Failed ratio**