CONSULTANCY MANAGEMENT SYSTEM

Advance Data Base Design

FAB5

CS603-D

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Sacred Heart University

School of Computer Science & Engineering

The Jack Welch College of Business & Technology

Submitted To:

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1.2 INTRODUCTION OF TEAM MEMBERS:

MANISHA BANDI:

I have completed under graduation in the stream of Computer Science, and I had 2+ years of IT Experience as Systems Analyst in Sonata Software Limited. I have technical skills of Java, MSQL and I am intrested to learn Python, Machine Learning. I want to work with the people who are technically strong and proactive which helps to build rapo between us.

VISHWAPRASAD REDDY:

I did my Bachelor of Engineering in the stream of Computer Science & Engineering. I worked in Amazon for 18 months as Transaction Risk Investigator, which deals with the online fraud happening on the customer's account which needs to be prevented. I have programming skills of Core Java, Java Database Connectivity and skilled on MySQL tool.

SHASHANK REDDY:

I did my under graduation in the field of computer science and engineering. I have technical skills in C, Python and Web designing and I am intrested in Network security. I like to work people who are passionate and enjoy helping each other.

VENKATA SUCHARITHA:

I did my under graduation in bachelor of commerce in computer science. I hold an experience of 2+ years in accounts payable field in Accenture as a Transaction Processing Analyst where I have worked on tools like SAP ERP, Oracle. I am intrested to learn new technologies further in this field and looking forward to interacting more with people which helps to gain good knowledge.

TEJESWAR JULAKANTI:

I did my under graduation in Information Technology from VR Siddhartha Engineering College. Later, I was recruited in TCS as RPA developer and had a work experience of 15 months. I have relevant technical knowledge in C++, Python, .net programming. I would love to work with people who has decision making skills and passion towards knowing new things which helps us to gain good knowledge and experience.

CONSULTANCY MANAGEMENT SYSTEM

2.1 Objectives of CMS:

Consultancy management system (CMS) includes in enrolling the consultants and storing their details. It is easy to use and is designed to upgrade each consultant's skill with real time projects.

CMS basically uses every consultant's data where they are selected based on the client requirements. Details like Skills and certifications are compared with client's project requirements[1].

This project develops a software that helps each consultant connect with the various clients and offer good job role in their company.

The main features of the system are storing client details, job details, skills required, certifications completed. CMS specifies the database where it contains rows and columns in the form of tables. These databases contain various datatypes, and attributes. The database has tables which contains different fields which describe its contents. The database is further explained in-depth with all fields used data types, limitations available, Primary key, foreign key.

2.2 Merits of CMS:

a. Establish a collaborative relationship with clients.
b. Helps to get attention to developing the real time project and relationships.
c. CMS is designed for skill development, to train on different technologies and different skill sets and assigning projects based on the client skill set, which helps for upgrading of skills.

2.3 GitHub Repository Address:

https://github.com/ManishaReddyBandi?tab=repositories

2.4 Entity Relationship Model (ER Model):

An Entity Relationship model (ER model) is design or a blueprint of a database. It illustrates how entities relate to each other within the system. ER diagrams are used most often used to design and debug the databases. They are a set of symbols, rectangles and ovals which are interconnected of entities and relationships and their attributes.
ER modeling is basically a database modeling method, produces type of conceptual schema (structure that represents the logical view of entire database). It also develops a very simple and easy design view of data.

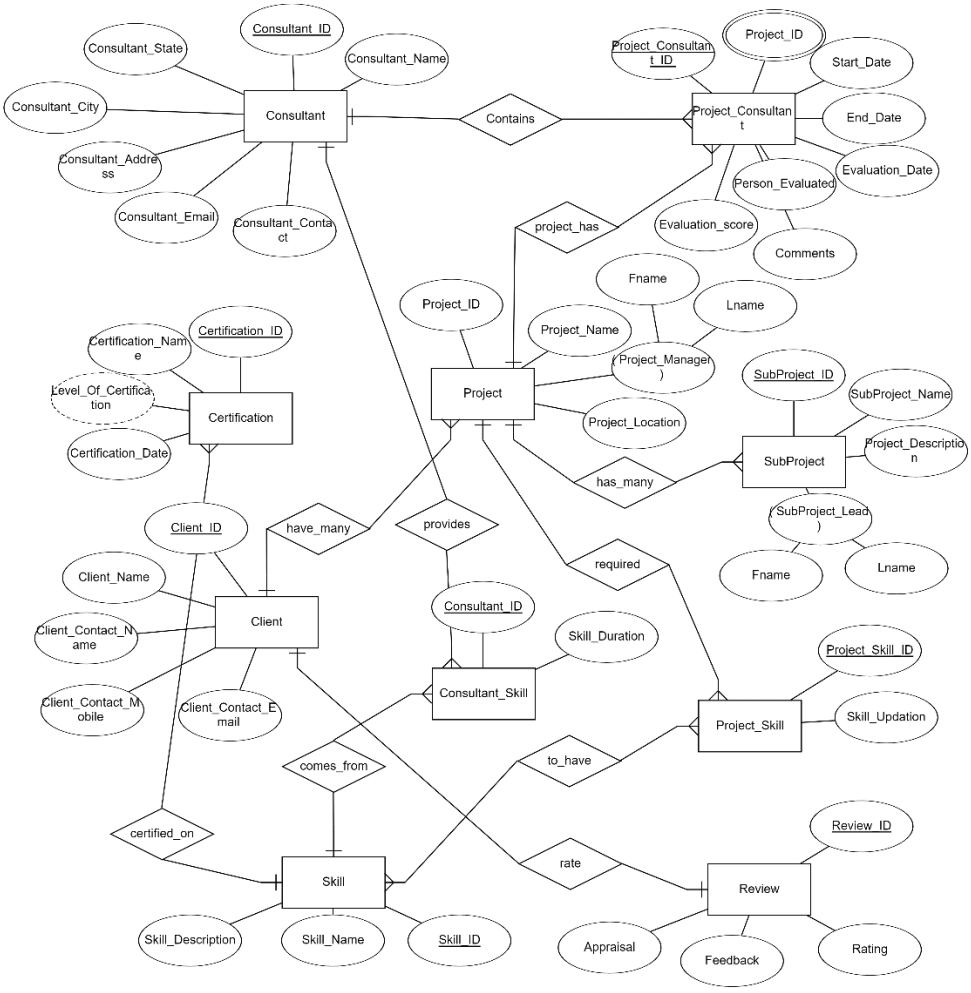


Figure (i). Entity Relationship Model

2.4.1 Description of Entities in CMS:

(a) Consultant:

Consultant entity stores all the details related to Consultancy like Consultant ID, Name, Address, City, State, Contact, Mail. It has One to Many (1: N) relationship with Consultant_Skill and Project_Consultant entities by having a common attribute as Consultant_ID.

Consultant_ID: stores the unique ID of Consultant.
Consultant _Name: Stores the Name of the Consultant.
Consultant_Address: Stores the address of the consultant.
Consultant_Skills: stores the skills required for Consultant.

(b) Consultant_Skill:

Consultant Skill entity stores the details of skill and Consultant like Consultant_ID, Skill_ID, Skill_Duration. It has Many to One (N:1) relationships with the Skill and consultant entities with Consultant_ID as Primary key.

(c) Skill:

Skill entity stores the skill details like Skill ID, Name, and short Description of each skill. It has One to Many (1: N) relationship with Project, Certification and Consultant_Skill entities. Skill_ID acts a unique ID. Certification is given based on completion of each skill.
Skill duration - skill duration is used to define the period of the skill

(d) Certification:

Certification refers to the confirmation of certain characteristics of an object, person or organization. Certification Entity stores all the details which displayed in Certificate after completion of training of each skill, it has attributes like Certification_ID, Certification_Name, Certification_Date, Skill_ID and Level_of_Certification. Certification can be given based on Level of skills learned.
Certification_ID: Each Certification is represented by its unique identification with Certification_ID
Certification_Name: Represents the name of the Certification
Certification_Date: Represents the start date and completion date.
Level_of_certification: represents the level of certification and their category of certification

(e) Client:

Client entity stores the data related to Client like Client_ID, Name, Contact_Name, Contact_Number, Email Address. It has one to One (1: 1) relationship with Consultant and Project entities.

(f) Project Skill:

Project skills are a group of skills needed to initiate, plan, and execute a project. Project skill entity stores the data related to project and Skills like Project_ID, skill_ID, skill_Updation and

Previous_Project_Experience. It has Many to One(N:1) relationship with Project and Skill table. It has update skills option to update skills in future.

(g) Project Consultant:

Project Consultant allocates the project, and it stores the details related ton project like Consultant_ID, Project_ID, Start_Date, End_Date, Evaluation_Date, Person_Evaluted, Evalution_Score and comments. It has Many to One(N:1) relationship with Consultant and Project.
Project_Consultant_ID: This attribute uniquely identifies the Consultant ID from different consultancies in the Project_Consultant Entity
Start_Date : This attribute provides the information about Project start date.
End_Date :This attribute provides the information about Project end date.
Person_Evaluated :This attribute provides the information about the person who is evaluating the project.
Evaluation_Score: This attribute provides the score of the project which is evaluated in the Project_Consultant Entity.

(h) Project:

Project entity stores the details of the project, Client and the manager who works on that project. It has attributes like Project_ID, Project_Manager, Client_ID, Project_Location, Project_Name.
It has One to Many (1:N) relationship with Subproject, Project_Consultant, Project_Skill and Many to One(N:1) relationship with client entity. Project is allocated if the skills in skill table matches with Project Skill table.
Project_Id: A project ID is a unique string used to differentiate your project from all others.
Project Manager: Project manager is responsible for the planning and execution and completion of a project
Project name - project name used for representing the project

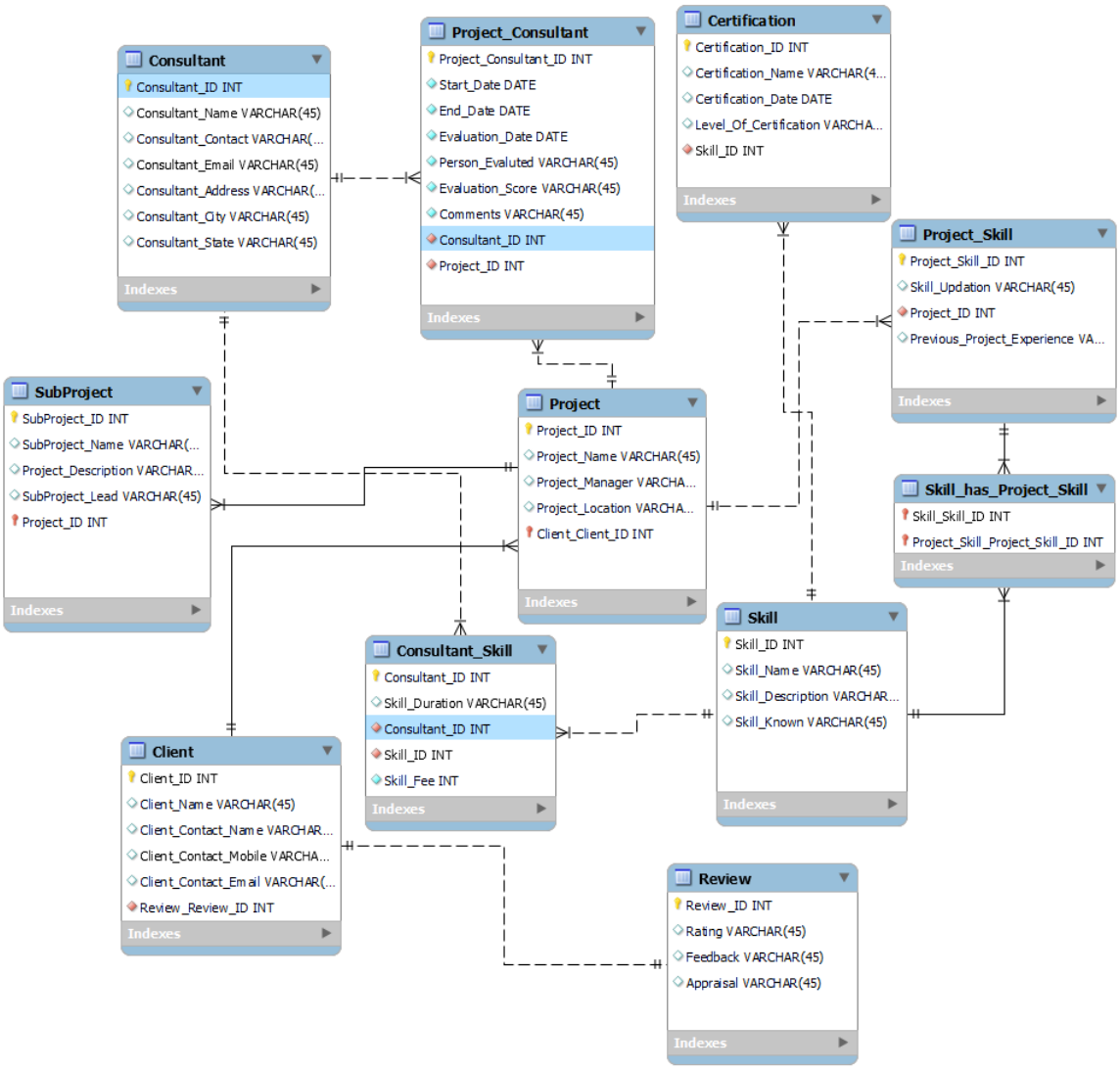
(i) Sub Project:

A subproject is a project that is a part of a larger project. Sub Project entity stores all Subproject details. Sub project is assigned after allocation of Project. It has attributes like Subproject_ID, Subproject_Name, Project_Id, Project_Description, SubProject_Lead. It has Many to One (N:1) relationship with Project Entity.
Project_ID:Contains the Project ID acts as unique key.
SubProject_Lead:Represents the Lead name of project.

(j) Review: SubProject_Lead
The return of information about the result of a performance. Review entity stores all the details of Client review like ClientID, Feedback, Rating, Appraisal. Client gives feedback, rating and Appraisal based on performance. It has Oneto One (1:1) relationship with Client.

2.5 Enhanced Entity Relation (EER):

Enhanced ER models are helpful tools for designing databases with high-level models. This ER model represents the database that we use for the project. The tables represent the schema. Each rectangle in the table describes the attributes and constraints of that table in the schema. Connecting lines between the tables define the relationship with other table, each relation has a constraint that connect one with the other.



Figure(ii) Enhanced Entity Relationship Diagram

2.6 References:

[1] https://studentprojectguide.com/vb-net/job-consultancy-management-system/