MCS-044 (Mini Project)

(Cricket Training Management System)

Submitted by

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Cricket Training Management System

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Title

Cricket Training Management System

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[1] INTRODUCTION

1.1 BACKGROUND:

We are going to Design and develop a Cricket Training Management System to improve the quality of training as per our curriculums. . There are many teams and each of them need different training, different set of exercises, and different diet. With your system it should be possible to select a set of exercises and create a programme for each team according to their age and experience, and keep track of each team member and his/her performance. Also, it has the attendance system to record, who did not turn up for a particular session. This system is also helpful to prepare a diet chart for each and every member considering his or her age, height, weight, role, level etc.

It consists different types of modules to maintain the activities of software such as member addition, updating, team update and addition, diet chart preparation, attendance status add, performance rating add etc.

1.2 AIM & OBJECTIVE

- To reduce manual work.
- To achieve the goal of university
- All data are available in a place.
- To avoid Mistakes.
- This software requires less manpower and low maintains.
- Information can retrieve any time according to requirement.
- To minimization of managing problem.

1.3 PURPOSE AND SCOPE

System is designed that keeps track of team, team members, diet chart for team and members using this automated system. Analyse the system requirements, and design the system and submitted for academic evaluation.

2. Survey of Technology

2.1 TOOLS / PLATFORM, LANGUAGES

The Microsoft .NET Framework

The .NET Framework is the infrastructure for the Microsoft .NET platform. The .NET Framework is an environment for building, deploying, and running Web applications and Web Services. Microsoft's first server technology ASP (Active Server Pages) was a powerful and flexible "programming language". But this was too code oriented. This was not an application framework and not an enterprise development tool.

The Microsoft .NET Framework was developed to solve this problem.

.NET Frameworks keywords:

- Easier and quicker programming
- Reduced amount of code
- Declarative programming model
- Richer server control hierarchy with events
- Larger class library
- Better support for development tools

Windows 10

This has overcome the limitation of the previous operating systems. The 32-bits and 64 bits concept ensure that the applications working on this platform are more stable and hence have very little chances of 'Hanging'. It is multi-tasking and multiprocessing operating system to perform different task simultaneously.

C#.Net

This is a new programming language that is used for developing program for the Microsoft .NET. This is object oriented programming language. We can design web application by using C-sharp. This is similar to c++ except that this supports HTML documents.

SQL Server

This is backend where the data is stored here and is really much secured database management system. This supports Client/Server concept also. most of the company prefers secured database management system than to cost. If can be used for distributed programming as well. This supper very easy query language like SQL the most popular query language. Now this supports Object Oriented Database and Knowledge Base Database Management System.

Ado.Net

This new data component, introduced with .NET, presented an exciting new approach to data access. Though the techniques, and logic used to connect to databases with ADO.NET weren't startlingly different from those used with its predecessor, ADO.NET had a lot to offer. What was unique about this technology was the architecture beneath This all, its powerful approach to data management, and the flexibility in the next level of data-presenting devices.

2.2 REASON FOR USING C# AS FRONT-END:-

.Net Framework is of the most prevailed framework to develop the web based application. This is the outcome of Microsoft which was developed for competing java in the world market. It supports many programming languages like C++, C#, Visual Basic, XML etc.

- It is Very easy to use ASP.net to develop web-based application because of its user-friendly functionalities.
- C# is the language that uses both CUI and GUI Interfaces thus more flexibility.
- Auto-generated and More Powerful IDE.
- Common to use Server; every language uses Internet Information Server

2.3 REASON TO OPT SQL SERVER AS BACK-END:-

SQL Server is RDBMS tool which has been used by me as back-end due to following reason:

- In today's competitive environment, an organization wants a comprehensive, secure, reliable, and productive data platform for its business applications. SQL Server provides all these facilities.
- SQL Server 2012 combines data analysis, reporting, integration, and notification services.
- The SQL Server database Engine provides a platform that allows managing data application very easily

3. Requirement and Analysis:

3.1 PROBLEM DEFINITION:

Design and develop a Cricket Training Management System to improve the quality of training. Assume there are many teams (according to their age and experience) and each of them need different training, different set of exercises, and different diet. With your system it should be possible to select a set of exercises and create a programme for each team according to their age and experience, and keep track of each team member and his/her performance. Also, it should include the attendance system to record, who did not turn up for a particular session. Your system should also prepare a diet chart for each and every member considering his or her age, height, weight, role, level etc

3.2 REQUIREMENT SPECIFICATION:

It consists different types of modules to maintain the activities of software such as member addition, updating, team update and addition, diet chart preparation, attendance status add, performance rating add etc.

3.3 PLANNING AND SCHEDULING:

- We prepare plan using following steps: -
- Prepare all requirements of organization on a paper.
- Identify the related tasks.
- Acquiring and organizing the tools and resources for the project.
- Preparation of well-defined schedule for events of the project
- Proper evaluation of progress of project development.
- Establishing various standards for the project by which we can find the standard output.

Work-Break Down Structure: - this is the scheduling technique where the project is scheduled in various phase following the top-down or bottom-up approach. The tree like structure is followed without any loop. At each phase or step, milestones and deliverables are mentioned with respect to requirements. The work break-down structure shows the overall breakup flow of the project and does not indicate any parallel flow.

3.4 REQUIREMENTS (H / S)

HARDWARE

Processor	: -	I-3
Clock speed	: -	3.0 GHz
HDD	: -	320 GB
CD ROM	: -	52 X
RAM	: -	1 GB
Monitor	: -	15'' Color

SOFTWARE

Platform	: -	Dot Net
Operating system	: -	Windows 10
Front-end	:-	C#.net 2012
Middle-end	:-	Ado.Net
Back-end	:-	SQL Server

TECHNICAL REQUIREMENT

- Productivity : - Proposed software must accomplish the all tasks of Institution according to the management.
- Reliability :- Operation must performs complete or accurate task.
- Security :- all information must be secure.
- Scalability :- the architecture adopted to develop this project must have technical flexibility to adopt the change in future.
- Integration : - all modules must be property integrated with each-other so that performance of system must be good.

3.5 PROCESS FLOW

1. **Interface Module:** it contains a list of all modules. It is designed with good interface architecture so that anyone can understand it easily. User can easily select the module and perform respective task.
2. **Search module:** User can search the details of programme, team, team member, diet chart, member details and other criteria.
3. **Member Module:** User can add member details including team details. User can update the member.
4. **Team module :** it is used to add/ update details of team.
5. **Training programme module:** it is used to add programme details as team. Team is selected from team data table.
6. **Attendance Module:** It is used to add attendance status and performance rating of members.
7. **Diet plan module:** it is used to add diet plan details, update and delete unused diet plan as per requirements.

3.6 INPUT INTERFACE

- Main Menu contains with various Options
- Add new Record
- Search Record
- Delete Record
- The system will be having user privileges based menu.
- User will have to select the options form the given menu.
- The system will be entering the information into the database to generate reports.
- The forms will be designed to enter the data.
- Buttons will be used to insert, retrieve or modify the data.
- Links will be provided to shift from one form to another.

3.7 List of reports

- **Training programme**

  This is used to display training programme details such as programme id , date time and team.

- **Diet chart plan**

  It displays diet chart plan as per member and team.

3.8 DATA STRUCTURE

Team

Attributes	Datatype	Size	Constraints	description
Team_id	Int		Primary Key	This is team id number
Team_name	Varchar	50	Not Null	Team name
Age_group	Varchar	50	Not Null	Team for which Age group
Descr	Varchar	200		Description
Diet_plan_id	Int		Foreign key(diet_plan)	Diet_plan_id selected for team.
Experience	Varchar	100	Not Null	Experience details

Team_Member

Attributes	Datatype	Size	Constraints	Description
Mem_id	Int		Primary key	Member id
Team_id	Int		Foreign key (Team)	Team id number
mname	Varchar	50	Not Null	Member name
Email	Varchar	50	Not Null	Email ID
Address	Varchar	100	Not Null	Address
Contact	Varchar	10	Not Null	Contact number
Age	Int		Not Null	Age of member
Height	Int		Not Null	Height of member
Weight	Int		Not Null	Weight of member
Role	Varchar	50		Roles in team

Diet_plan

Attributes	Datatype	Size	Constraints	Description
Diet_plan__id	Int		Primary key	Diet plan ID
Breakfast	Varchar	200	Not Null	Breakfast diet
Lunch	Varchar	200	Not Null	Lunch diet details
Eve_meal	Varchar	200	Not Null	Evening meal
Post_training	Varchar	200	Not Null	Post training meal

Training_programme

Attributes	Datatype	Size	Constraints	Description
Prg_id	Int		Primary key	Programme ID
Team_id	Int		Foreign key (team)	Team id
tdate	Date		Not Null	Training date
Time	Date/Time		Not Null	Timing
Exercise_details	Varchar	200	Not Null	Exercise details
			Not Null	

Attendance_performance

Attributes	Datatype	Size	Constraints	Description
Attd_id	Int		Primary key	Attendance id
Prg_id	Int		Foreign key (training programme)	Programme id
Mem_id	Int		Foreign key	Member ID
status	Varchar		Not Null	Attend status(present/Absent)
Performance	Varchar		Not Null	Performance details (Excellent/ Very good/good/poor)

3.9 DFD

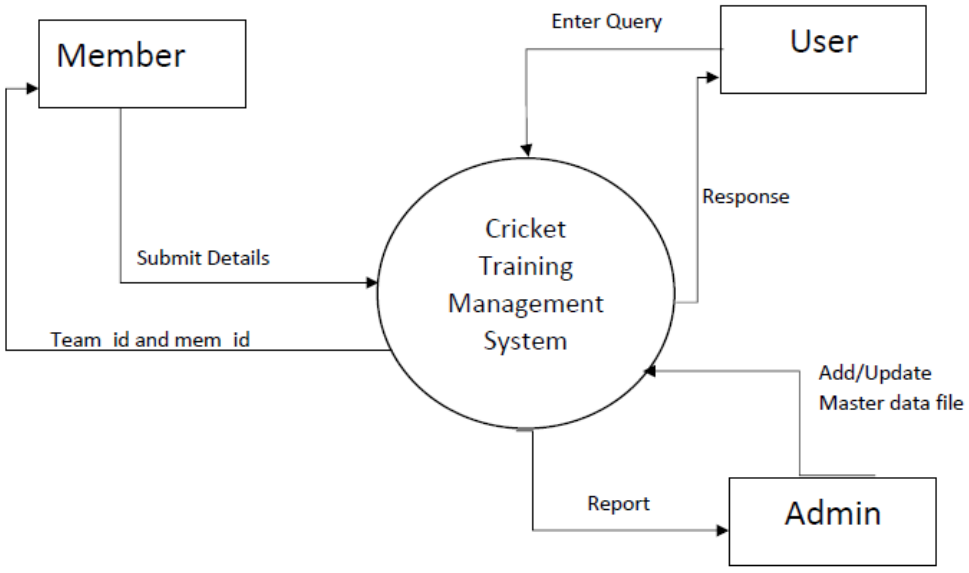
Data Flow

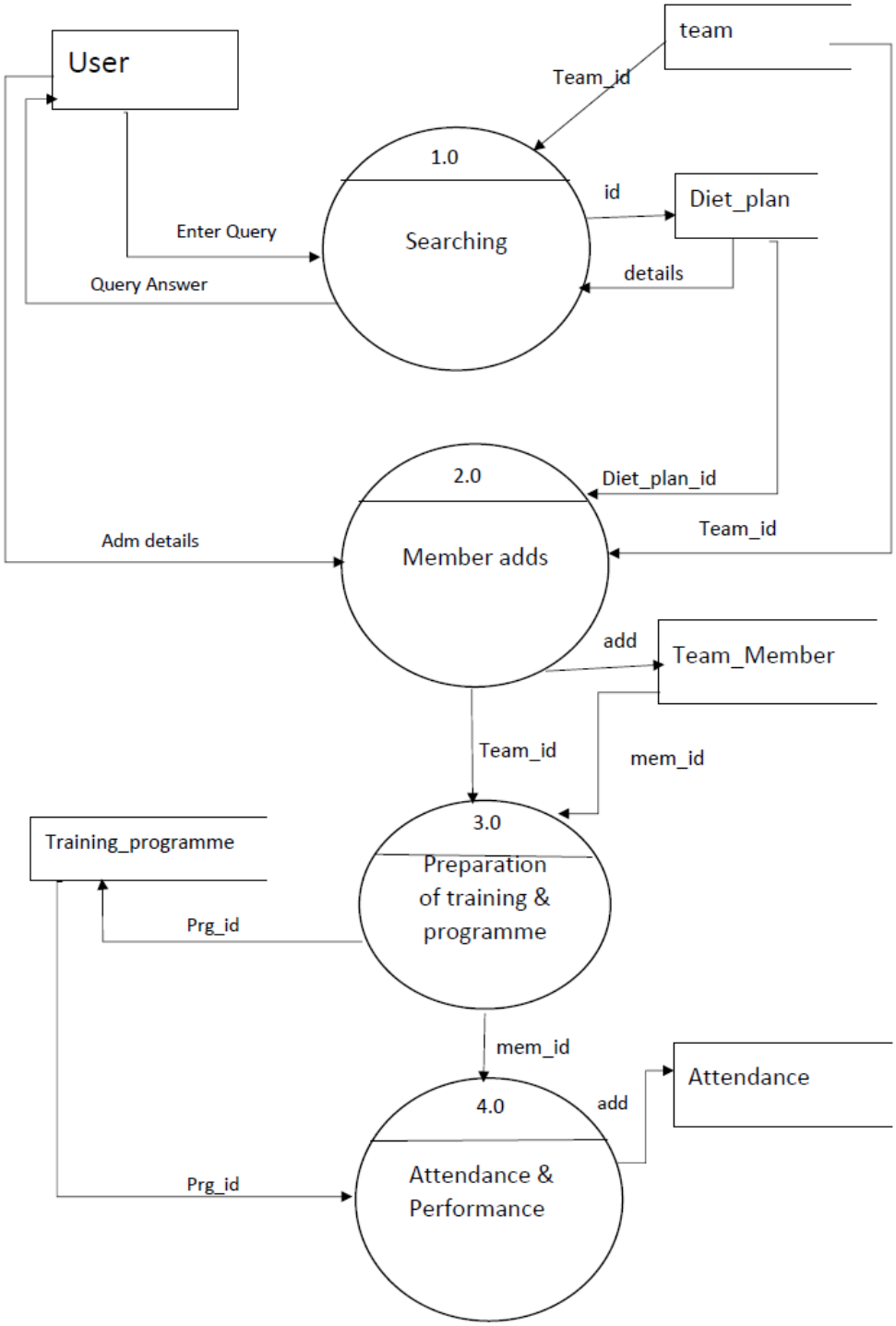
An arrow represents data flow; it represents the path over which data travels in the system. A data flow can move between processes, flow into or out of data stores, to and from external entities.

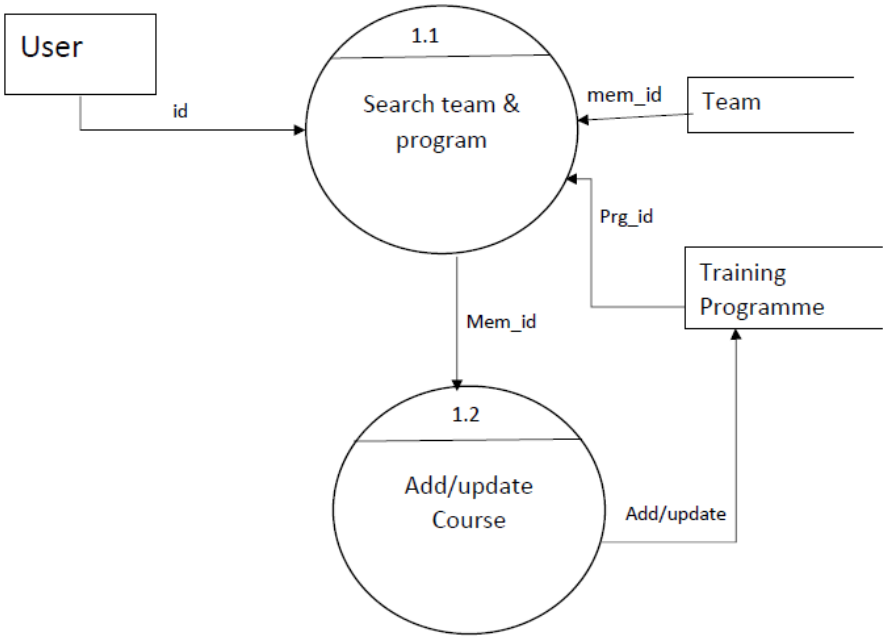
0 LEVEL DFD: -

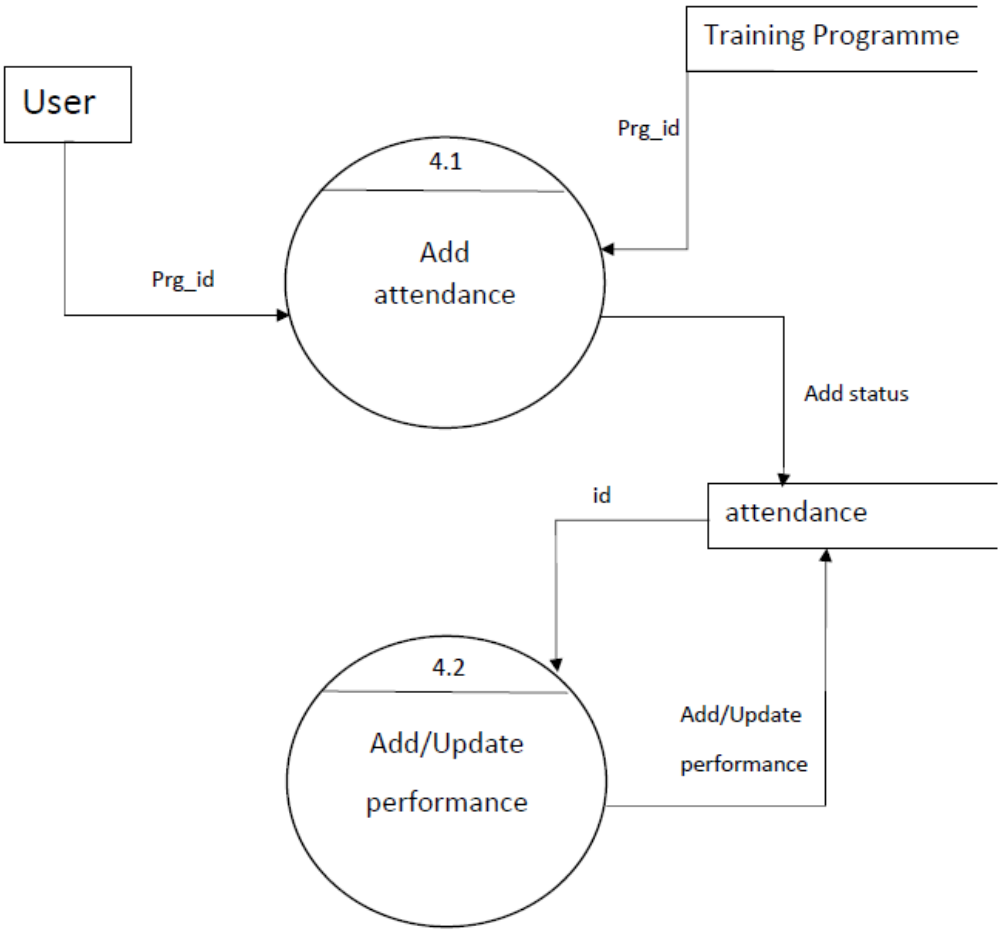
This is the context level DFD of the proposed system the whole system has been depicted in a single bubble, primary input and output has been carefully noted and depicted in the way so that information flow continuity should not be lost in the next level. The purposed system is shown as a whole process and the inputs and outputs are shown with incoming and outgoing arrow from the system

DFD level 0:

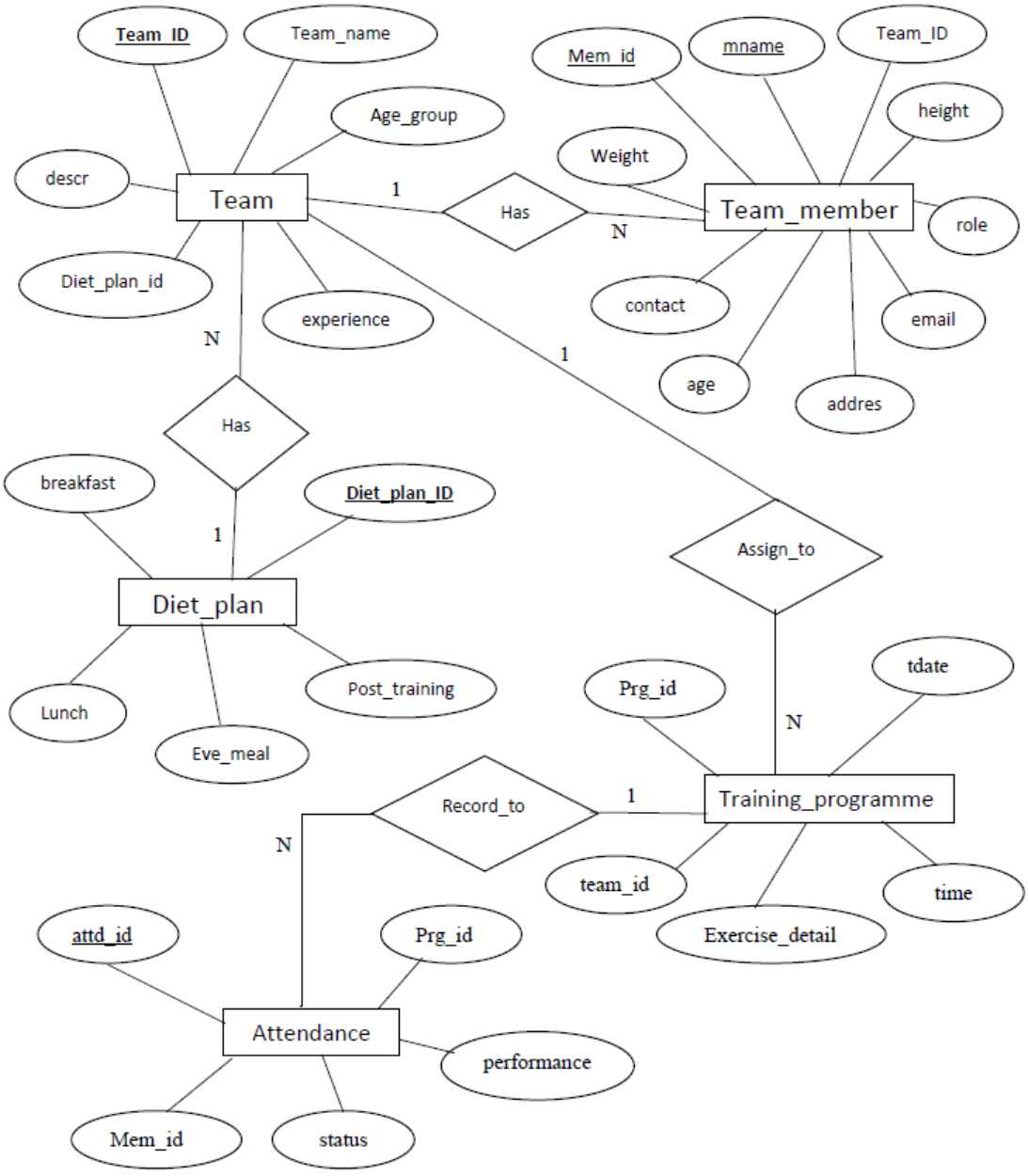



User
team
Team_id
1.0
Searching
id
Diet_plan
Enter Query
Query Answer
details
2.0
Member adds
Diet_plan_id
Team_id
Adm details
add
Team_Member
Team_id
mem_id
3.0
Preparation of training & programme
Training_programme
Prg_id
mem_id
4.0
Attendance & Performance
add
Attendance
Prg_id


User
id
1.1
Search team &
program
mem_id
Team
Prg_id
Training
Programme
Mem_id
1.2
Add/update
Course
Add/update


Training Programme
User
Prg_id
4.1
Add
attendance
Prg_id
Add status
id
attendance
4.2
Add/Update
performance
Add/Update
performance

3.10 ER Diagram



3.11 FUTURE SCOPE & Limitation OF APPLICATION

The project entitled "**Cricket Training Management System**" meets all requirements of cricket training management . proposed software application is used to improve the training quality of cricket team. It uses large database where large amount of data is stored. Currently it is not able to manage other management activities and trainer details.

It can be added as per requirements.

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