Using ORACLE DATABASE DATA TYPES

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
USER	id	INTEGER(20)	N	Y	Y	N	auto-generated number
	first_name	VARCHAR2(50)	N	N	N	N	First name of user
	middle_name	VARCHAR2(50)	Y	N	N	N	Middle name of user
	last_name	VARCHAR2(50)	Y	N	N	N	Family name of user
	email	VARCHAR2(100)	Y	N	N	N	Preferred email address to get emails
	primary_contact_num	VARCHAR2(50)	Y	N	N	N	Most preferred contact number
	secondary_contact_num	VARCHAR2(50)	Y	N	N	N	In case of primary contact number is not reachable
	dob	DATE	Y	N	N	N	Date of Birth

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
USER_ADDRESS	user_id	INTEGER(20)	N	Y	N	USER.id	
	address_id	INTEGER(20)	N	Y	N	ADDRESS.id	

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
ADDRESS	id	INTEGER(20)	N	Y	Y	N	Auto-generated number
	street1	VARCHAR2(100)	N	N	N	N	
	street2	VARCHAR2(100)	Y	N	N	N	
	city	VARCHAR2(50)	N	N	N	N	
	state	VARCHAR2(50)	N	N	N	N	
	county	VARCHAR2(50)	Y	N	N	N	
	zipcode	VARCHAR2(10)	N	N	N	N	Five digit number
	country	VARCHAR2(100)	Y	N	N	N	

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
USER_INTEREST	user_id	INTEGER(20)	N	Y	Y	USER.id	
	interest_id	INTEGER(20)	N	Y	Y	INTEREST.id	

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
INTEREST	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	name	VARCHAR2(100)	N	N	N	N	Name for interest (e.g painting the wall)
	Description	VARCHAR2(300)	Y	N	N	N	More detail about interest name if required

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
Recent_Education	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	education_level	VARCHAR2(100)	N	N	N	N	(e.g Masters in Computer Science)
	user_id	INTEGER(20)	Y	N	Y	USER.id	

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
Expertise	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	Expertise_area	VARCHAR2(100)	N	N	N	N	Name for expertise(e.g. art restoration)
	user_id	INTEGER(20)	Y	N	Y	USER.id	
	Skill_id	INTEGER(20)	Y	N	Y	SKILL.id	

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
SKILL	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	name	VARCHAR2(100)	N	N	N	N	
	description	VARCHAR2(300)	Y	N	N	N	

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
ROLE	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	name	VARCHAR2(50)	N	N	Y	N	Specific role name (volunteer, donor, user, admin)
	description	VARCHAR2(300)	Y	N	N	N	Comment on name

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
USER_ROLE	role_id	INTEGER(20)	N	Y	N	ROLE.id	
	User_id	VARCHAR2(50)	N	Y	N	USER.id	

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS

ANSWER_SELECTED	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	correct_answer	VARCHAR2(100)	Y	N	N	N	Correct answer for particular survey and question of that survey by a user
	user_id	VARCHAR2(300)	N	N	N	USER.id	
	survey_id	INTEGER(20)	N	N	Y	SURVEY.id	
	question_id	INTEGER(20)	N	N	Y	QUESTION.id	

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
QUESTION	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	question_type	VARCHAR2 (20)	N	N	N	N	Question type can be select or text
	description	VARCHAR2(200)	Y	N	N	N	Details for question type if needed

TABLE NAME	FIELD NAME	DATA TYPE	NULLS ALLOWED	PRIMARY KEY	UNIQUE	FOREIGN KEY	COMMENTS
ANSWER_OPTION	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	name	VARCHAR2 (20)	N	N	N	N	Answer type(select or text)
	description	VARCHAR2(200)	Y	N	N	N	anwer

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
SURVEY_QUESTION	question_id	INTEGER(20)	N	Y	N	QUESTION.id	
	survey_id	INTEGER(20)	N	Y	N	SURVEY.id	

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
SURVEY	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	name	VARCHAR2(100)	N	N	N	N	Title for survey
	date_created	DATE	N	N	N	N	Created date of survey
	question_id	INTEGER(20)	Y	N	N	QUESTION.id	Question id of the questions that are

							added to this survey

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
USER_SURVEY	user_id	INTEGER(20)	N	Y	Y	USER.id	
	date_created	DATE	N	N	N	N	
	question_id	INTEGER(20)	N	N	N	QUESTION.id	

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
USER_SCHOOL	user_id	INTEGER(20)	N	Y	N	USER.id	
	school_id	INTEGER(20)	N	Y	N	SCHOOL.id	

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
SCHOOL	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	name	VARCHAR2(100)	N	N	Y	N	Name of school
	contact_number	VARCHAR2(50)	N	N	Y	N	Work phone of the school
	address_id	INTEGER(20)	N	N	N	ADDRESS.id	Address associated with this school

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
MEMBERSHIP_LEVEL	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	member_level	VARCHAR2(20)	N	N	N	N	Different membership level(life, founders, pioneer, family, general)
	amount	INTEGER(10)	Y	N	N	N	Price for that particular membership

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
MEMBERSHIP	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	start_date	DATE	Y	N	N	N	Start date for the membership
	end_date	DATE	Y	N	N	N	Estimated end date for the particular member_level type
	membership_level_id	INTEGER(20)	N	N	N	MEMBERSHIP_LEVEL.id	Associated Id of membership_level
	user_id	INTEGER(20)	N	N	N	USER.id	Associated user to this membership

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
EVENT	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	name	VARCHAR2(100)	N	N	N	N	Title for the event
	description	VARCHAR(300)	Y	N	N	N	Overview of what event is about
	start_date	DATETIME	N	N	N	N	Start date and time of the event
	end_date	DATETIME	N	N	N	N	End date and time of the event
	location_id	INTEGER(20)	N	N	N	ADDRESS.id	Address id associated where event is going to be held

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
USER_EVENT	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	user_id	INTEGER(20)	N	N	N	USER.id	Id of the user participating in the event
	event_id	INTEGER(20)	N	N	N	Event.id	Event id associated
	role_id	INTEGER(20)	N	N	N	ROLE.id	Role for the particular user

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
USER_DONATION	donation_id	INTEGER(20)	N	Y	N	DONATION.id	
	user_id	INTEGER(20)	N	Y	N	USER.id	

Table Name	Field Name	Data Type	Nulls Allowed	Primary Key	Unique	Foreign Key	Comments
DONATION	id	INTEGER(20)	N	Y	Y	N	Autogenerated number
	monetary_value	NUMBER(10,2)	Y	N	N	N	Amount in dollars
	date	DATE	Y	N	N	N	Donated date
	type	VARCHAR2(50)	Y	N	N	N	Donation type(money or assets)
	description	VARCHAR2(150)	Y	N	N	N	Details about the donation

Index part:

Index Name	Index Type	Table Name	Field(s)	Reason
idx_user_last_name	Non-Unique	User	last_name	last_name are used quite often to fetch user
idx_user_last_name_first_name	Non-Unique	User	last_name,first_name	User's are searched using Full Name
idx_interest_name	Non-Unique	Interest	Name	Interests are searched by name
idx_user-id	Non-Unique	Recent_Education	user-id	To find education_level of a User
idx_skill_user_id	Non-Unique	Expertise	skill_id, user_id	To find Expertise Area of a User
idx_skill_name	Non-Unique	Skill	skill_name	To find Skill
idx_user_survey_id	Non-Unique	Answer_selected	user_id,survey_id	To find answers for a Survey taken by User
idx_date_created_survey	Non-Unique	Survey	date_created	To find surveys by date
idx_school_name	Non-Unique	School	Name	To find School by name
idx_membership_user_id	Non-Unique	Membership	user_id	To find membership of a user
idx_event_name	Non-Unique	Event	Name	To find Event by name
idx_event_start_date	Non-Unique	Event	start_date	To find Event by date
idx_event_user_id	Non-Unique	User_Event	user_id	To find Events for a user

View part:

/******************************* ParticipantInEvent View ****************************/

VIEW name: ParticipantInEvent -- to show the participants of an event

SQL:

CREATE VIEW ParticipantInEvent AS

SELECT u.first_name, u.last_name,ue.name as EventName

FROM User u

INNER JOIN User_Event ue ON (u.id= ue.user_id)

INNER JOIN Event e ON (ue.event_id = e.id);

/********************************* end of ParticipantInEvent View ***********************/

/********************************* Donation view **/

VIEW name: DonationList -- to show the list of donation

SQL:

CREATE VIEW DonationList AS

SELECT u.first_name, u.last_name, d.monetary_value

FROM User u

INNER JOIN User_Donation ud ON (u.id= ud.user_id)

INNER JOIN Donation d ON (ud.donation_id = d.id)

ORDER BY d.monetary_value DESC;

/********************************** end of Donation view ***********************************/

/********************************* Membership view **/

VIEW name: MembershipList -- to show the list of members and their level

SQL:

CREATE VIEW MembershipList AS

SELECT u.first_name, u.last_name, ml.member_level

FROM User u

INNER JOIN Membership m ON (u.id= m.user_id)

INNER JOIN Membership_Level ml ON (ml.id = m.membership_level_id)

/********************************** end of Membership view **********************************/

/******************************* UserInterestsView *****************************/

VIEW name: UserInterests -- to show the users specific interests

SQL:

CREATE VIEW UserInterests AS

SELECT u.first_name, u.last_name,i.name as UserInterest

FROM User u

INNER JOIN User_Interest ui ON (u.id= ui.user_id)

INNER JOIN Interest i ON (ui.interest_id = i.id);

/********************************** end of UserInterestsView ***********************/

/******************************** UserSurveyList*****************************/

VIEW name: UserSurveyList -- to show the surveys taken by users

SQL:

CREATE VIEW UserSurveyList AS

SELECT u.first_name, u.last_name,s.name as UserSurveyList

FROM User u

INNER JOIN User_Survey us ON (u.id= us.user_id)

INNER JOIN Survey s ON (us.survey_id = s.id);

/********************************** end of UserSurveyList **********************/