

Database design for an Event management system

OBJECTIVE:

- ❖ Database design is proposed for addressing an event management application, where users can create, access and register for any event that is occurring at the university.

This design supports the following features-

- ❖ User must sign up/login for the application with user id and password along with personal details such as First name, Last name, Email ID, Phone number, campus details and so on.
- ❖ Organizers with admin permissions will be able to create an event and store the details such as event name, venue, date and time, price of the ticket etc .
- ❖ User will be able to search the list of events occurring in the university.
- ❖ User will be able to register for events, purchase one or more tickets for events based on the event timings.
- ❖ User will be restricted to register for events that are happening at the same time.

PROBLEM STATEMENT:

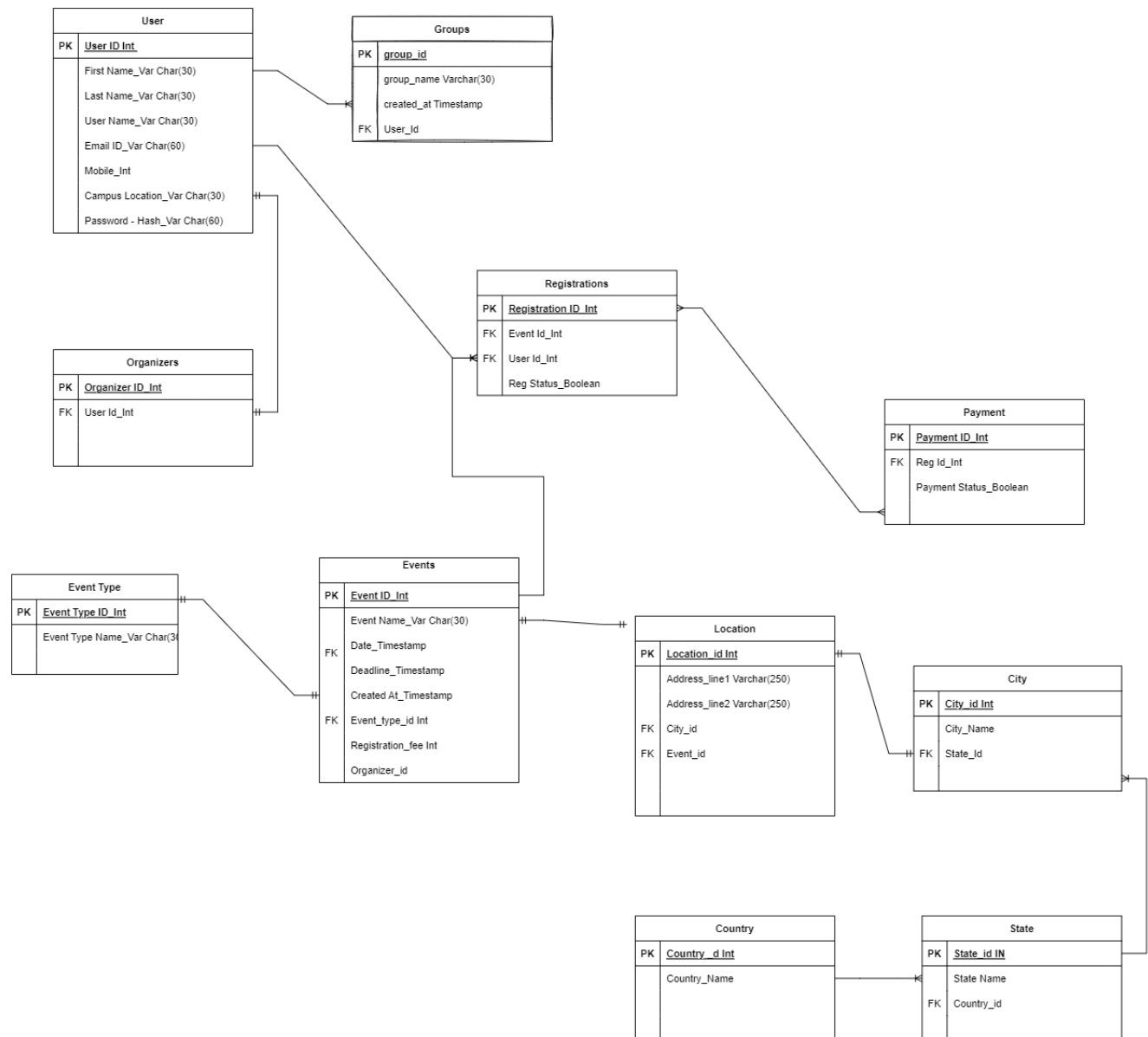
- University has multiple clubs and they host many events throughout the academic year.
- It is in-efficient and time consuming to find about each and every event to students.
- Event organizers find it hard to keep track of list of attendees, payment status.

PROPOSED SOLUTION:

- Database model is developed to address above problems where the stakeholders (students and event organizers) can sign up for the application to access details about all the events that are taking place in the university.
- This model has entities such as Users, Organizers, Events, Event types, Registrations and Payment.
- Using our database design, users who are organizers can create an event, retrieve the list of events, update the details for the existing event, delete the events.
- Admins can add the organizers and users both to participate in the events and create the events.
- Users (students) can register using their Northeastern email id, create their profile and access the list of events and details about them.
- Registration and payment status are stored and maintained on each transaction.

Northeastern University
DAMG6210 - Data Management and Database Design
Project Phase - 1 : Database Design Document

DATA MODEL E-R DIAGRAM:



USER ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
USER_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
USERNAME	VARCHAR (16)	UNIQUE KEY, NOT NULL
EMAIL	VARCHAR (60)	UNIQUE KEY, NOT NULL
PASSWORD	VARCHAR (15)	NOT NULL
CAMPUS_LOCATION	VARCHAR (45)	NOT NULL
FIRST_NAME	VARCHAR (45)	NOT NULL
LAST_NAME	VARCHAR (45)	NOT NULL
PHONE_NUMBER	INTEGER	NOT NULL

EVENT ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
EVENT_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
EVENT_NAME	VARCHAR (16)	UNIQUE KEY, NOT NULL
DATE	TIMESTAMP	CURRENT_TIMESTAMP
DEADLINE	TIMESTAMP	CURRENT_TIMESTAMP
CREATEDAT	TIMESTAMP	CURRENT_TIMESTAMP
REG_FEE	INT	NOT NULL
EVENT_TYPE	VARCHAR (45)	NOT NULL

ORGANIZER_ID	INTEGER	FORIENT KEY,NOT NULL
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EVENT_TYPE ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
EVENT_TYPE_ID	INTEGER	PRIMARY KEY, AUTO GENERATED

GROUPS ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
GROUP_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
GROUP NAME	VARCHAR (16)	UNIQUE KEY, NOT NULL
CREATEDAT	TIMESTAMP	CURRENT_TIMESTAMP
USER_ID	INTEGER	FORIENT KEY,NOT NULL

ORGANIZERS ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
ORGANIZERS_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
USER_ID	INTEGER	FORIENT KEY,NOT NULL

REGISTRATIONS ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
REGISTRATION_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
GROUP_ID	INTEGER	FORIENT KEY,NOT NULL

USER_ID	INTEGER	FORIENT KEY,NOT NULL
REG_STATUS	BOOLEAN	NOT NULL

PAYMENTS ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
REGISTRATION_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
GROUP_ID	INTEGER	FORIENT KEY,NOT NULL
USER_ID	INTEGER	FORIENT KEY,NOT NULL
REG_STATUS	BOOLEAN	NOT NULL

LOCATION ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
LOCATION_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
ADDRESS_LINE1	VARCAHR(45)	NOT NULL
CITY_ID	INTEGER	FORIENT KEY,NOT NULL
EVENT_ID	INTEGER	FORIENT KEY,NOT NULL

CITY ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
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CITY_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
CITY_NAME	VARCAHR(45)	NOT NULL
STATE_ID	INTEGER	FORIENT KEY,NOT NULL

STATE ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
STATE_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
STATE_NAME	VARCAHR(45)	NOT NULL
COUNTRY_ID	INTEGER	FORIENT KEY,NOT NULL

COUNTRY ENTITY

ATTRIBUTES	DATA TYPE AND SIZE	COMMENTS
COUNTRY_ID	INTEGER	PRIMARY KEY, AUTO GENERATED
COUNTRY_NAME	VARCAHR(45)	NOT NULL

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