



# Greenwood Road Runners

Dylan Neese | Huntington University | CS 415 Database Management – Fall 2025 - Final Project

## Overview

- The database is used by the **Greenwood Road Runners**, a local running club with about 60 members. Club staff—such as the president, race director, membership coordinators, and volunteer timers—use it to manage members, races, and event results.
- Users view race schedules, track member performance, record results, and generate quick reports like leaderboards and race histories.

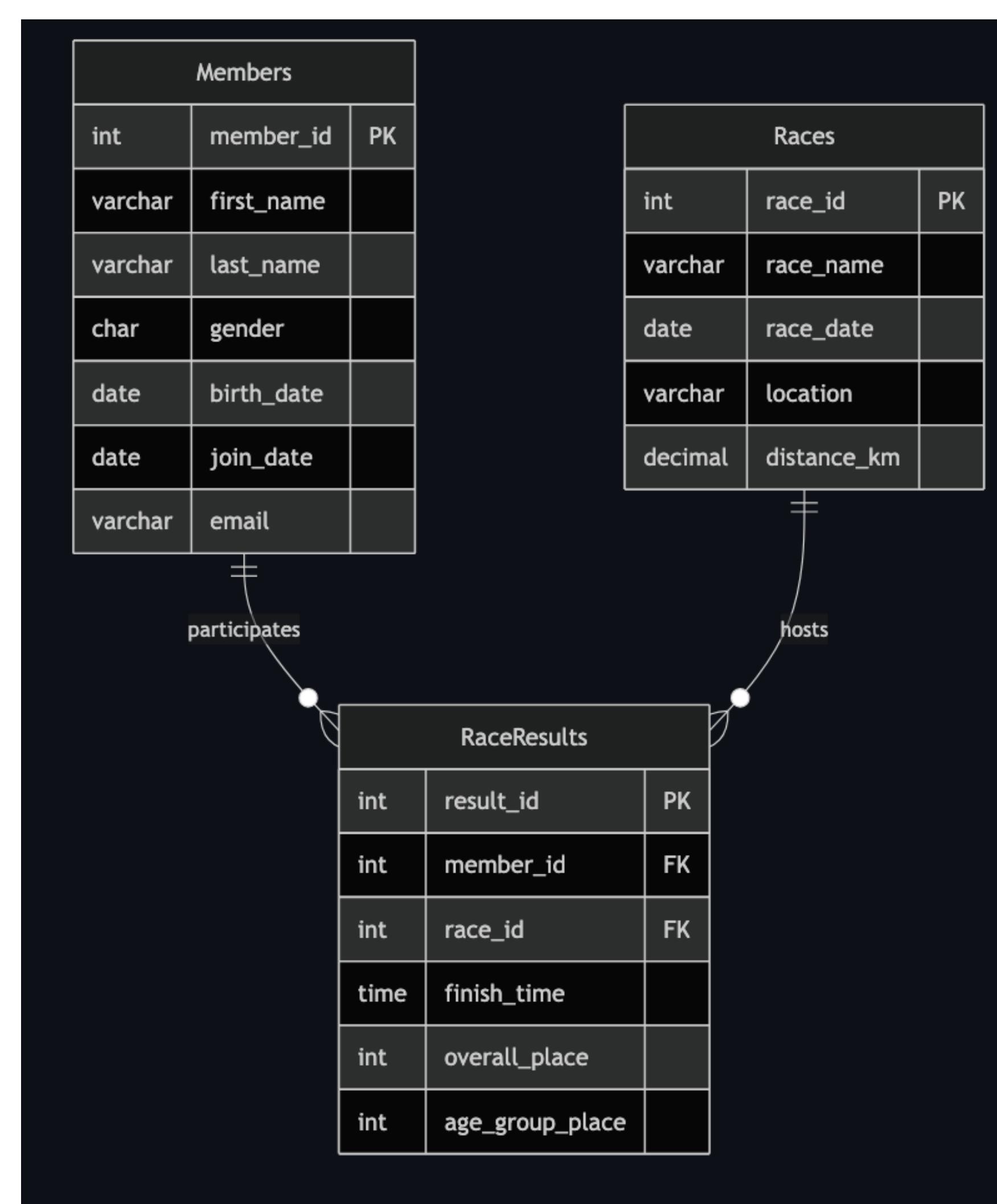
## Design

- Three tables: Members, Races, RaceResults
- RaceResults links members ↔ races (many-to-many)
- Designed to 3NF (no repeating or redundant data)
- Only keys stored in RaceResults; details stay in their own tables
- Kept race location inside Races for simplicity

### Table Purposes

- Members – Stores member info
- Races – Stores race event details
- RaceResults – Records participation + performance

## ER Model



## Data

### Members

- Contains 60 members with fields like member\_id, first/last name, gender, birth\_date, join\_date, and email.
- Example: Emma Johnson (F), born 1995, joined 2022.

### Races

- Includes 25 races with fields like race\_id, race\_name, race\_date, location, and distance.
- Example: Turkey Trot 5K – 2025-11-27 at Greenwood City Park.

### RaceResults

- Stores performance results linking members to races. Includes finish time, overall\_place, and age\_group\_place.
- Example: Member 1 ran the Turkey Trot 5K in 23:45, placing 45th overall.

## Queries

- CREATE OR REPLACE VIEW v\_5k\_leaderboard AS
- SELECT m.member\_id, m.first\_name, m.last\_name, MIN(rr.finish\_time) AS best\_5k\_time
- FROM RaceResults rr JOIN Races r ON rr.race\_id=r.race\_id
- JOIN Members m ON rr.member\_id=m.member\_id
- WHERE r.distance\_km=5.00 GROUP BY m.member\_id ORDER BY best\_5k\_time;
- SELECT \* FROM v\_5k\_leaderboard LIMIT 10;

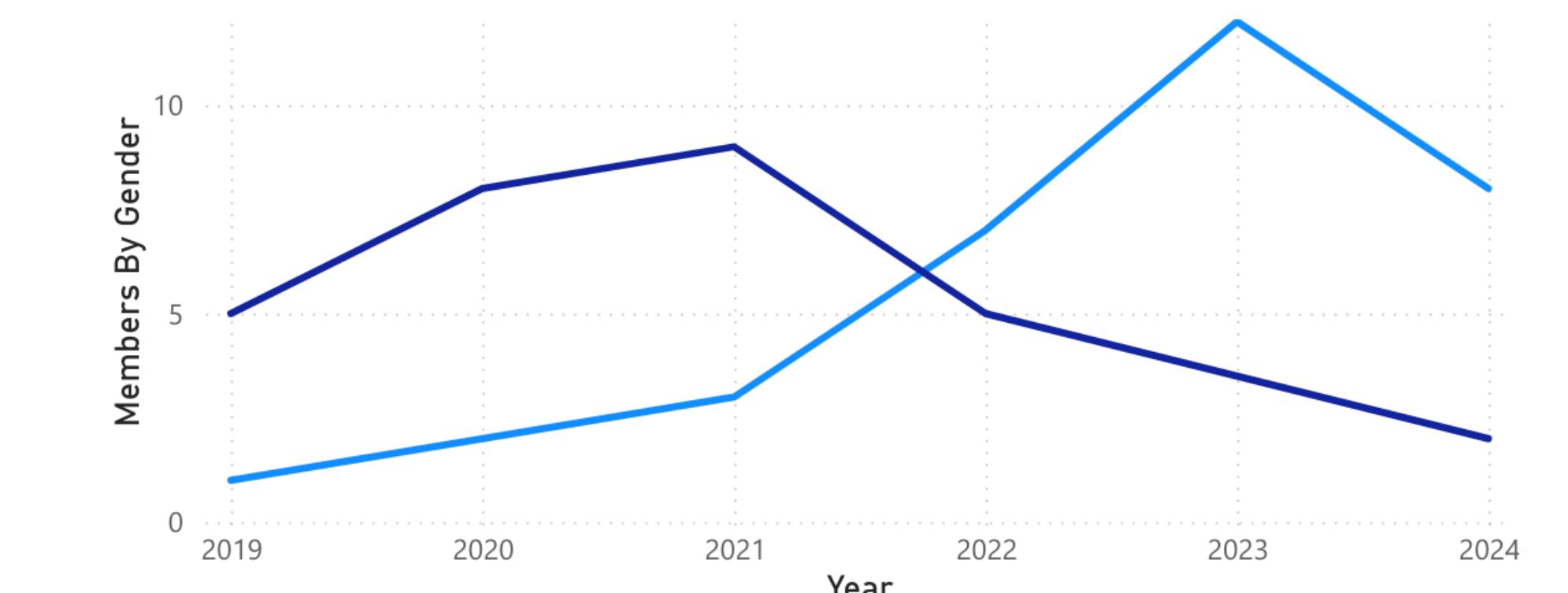
member_id	first_name	last_name	best_5k_time
2	Liam	Garcia	00:18:08
12	Amelia	Clark	00:20:45
38	Addison	Edwards	00:20:50
4	Noah	Davis	00:20:55
58	Penelope	Jenkins	00:20:55
44	Aubrey	Rogers	00:21:15
32	Zoe	Phillips	00:21:20
22	Luna	Scott	00:21:40
16	Evelyn	Allen	00:21:40
52	Nora	Bennett	00:21:45

## Reports

### Race Schedule Report (2024–2025)

Race	Location	Date
Resolution Predict 8K	Lake Trail	Monday, January 01, 2024
Leprechaun Leap 5K	Emerald Hills	Saturday, March 16, 2024
April Showers 10K	Waterfront	Saturday, April 06, 2024
Mother's Day 5K	Botanical Gardens	Saturday, May 11, 2024
Father's Day 15K	Father's Trail	Saturday, June 15, 2024
Halloween Hustle 5K	Haunted Woods	Saturday, October 26, 2024
New Year Resolution 10K	Lake Greenwood Trail	Wednesday, January 01, 2025
Frostbite 5K	Riverside Path	Saturday, February 08, 2025
Valentine's Couples 5K	Lover's Lane Loop	Friday, February 14, 2025
Shamrock Shuffle 5K	Dublin District	Saturday, March 15, 2025
Spring Classic Half Marathon	River Trail	Saturday, April 12, 2025
Earth Day 5K	Nature Preserve	Tuesday, April 22, 2025
Cinco de Mayo Fiesta 5K	Old Town	Monday, May 05, 2025
Memorial Day Freedom Run 10K	Veterans Memorial Park	Monday, May 26, 2025
Summer Solstice Midnight Run	Lakefront	Saturday, June 21, 2025
Firecracker 4-Miler	Liberty Park	Friday, July 04, 2025
Beat the Heat Evening 5K	Community College Track	Saturday, August 16, 2025
Back to School 5K	High School Campus	Saturday, August 30, 2025
Labor Day Bridge Run 10K	River Bridge	Monday, September 01, 2025
Fall Festival 5K	County Fairgrounds	Saturday, October 18, 2025
Monster Dash Half Marathon	Cemetery & Trails	Friday, October 31, 2025
Turkey Trot 5K	Greenwood City Park	Thursday, November 27, 2025
Jingle Bell Run 5K	Downtown Square	Saturday, December 13, 2025
Reindeer Run 5K	Downtown Lights	Sunday, December 14, 2025

Annual Member Enrollment by Gender  
gender ● F ● M



## Future Work

In the future, this database could be expanded to include additional race details such as course difficulty, terrain type, or certification status. These enhancements would allow for more detailed reporting and better comparison between different race events.

## Works Cited

xAI. (2025). Grok [Large language model]. <https://grok.x.ai/>

OpenAI. (2025). ChatGPT [Large language model]. <https://chat.openai.com/>