

# Hungar Games Database System

Steven Gresham, Brittney Meza, Lizett Lazaro, Isabel Harden

Who did what:

Team member name	Section(s) you implemented, wrote or designed.	Approximate hours you spent
Lizett Lazaro	<ul style="list-style-type: none"><li>- CSV files</li><li>- Queries</li></ul>	4
Isabel Harden	<ul style="list-style-type: none"><li>- Project Description</li><li>- Queries</li></ul>	4
Brittney Meza	<ul style="list-style-type: none"><li>- ER Diagram</li><li>- Queries</li></ul>	4
Steven Gresham	<ul style="list-style-type: none"><li>- RM Diagram</li><li>- Creation of DB</li><li>- Implementation of CSV Files</li><li>- Queries</li><li>- Final Report</li></ul>	8

## Project Description:

### TRIBUTE:

- Every tribute is identified by a unique ID number that is 9 digits long
- Every tribute has a DOB
- Every tribute has a sex.
- Every tribute has an age.
- Every tribute has stats, which consist of a training score, multiple skill sets, and a kill count.
- Every tribute must belong to a single district.
- A tribute may be mentored by several mentors.
- A tribute may be sponsored by several sponsors.
- A tribute may receive several gifts.
- A tribute must be prepared by a prep team.
- A tribute must have one guide.
- Each tribute must be broadcasted by at least one TV Host.

### PREP TEAM:

- Every prep team has a unique head stylist.
- Every prep team has a team member in charge of hair.
- Every prep team has a team member in charge of makeup.
- Every prep team has a team member in charge of general beauty.
- Every prep team must prepare one tribute.

### SPONSOR:

- Every sponsor has a unique ID consisting of their name and date of birth.
- A sponsor may sponsor several tributes.

### TV HOST:

- Every host has a unique ID consisting of their name and date of birth.
- Every host has a number of years working in the industry.
- Each host has an interview team.
- Each host must broadcast at least one tribute.

### GUIDE:

- Every guide has a name. (No two guides have the same name)
- Every guide has a date of birth.
- Every guide has a sex.
- A guide must guide at least one tribute.

### MENTOR:

- Every mentor has a name.
- Every mentor has a sex.
- Every mentor has an age.
- Every mentor has a unique game won. (This is Unique)
- A mentor may mentor several tributes.

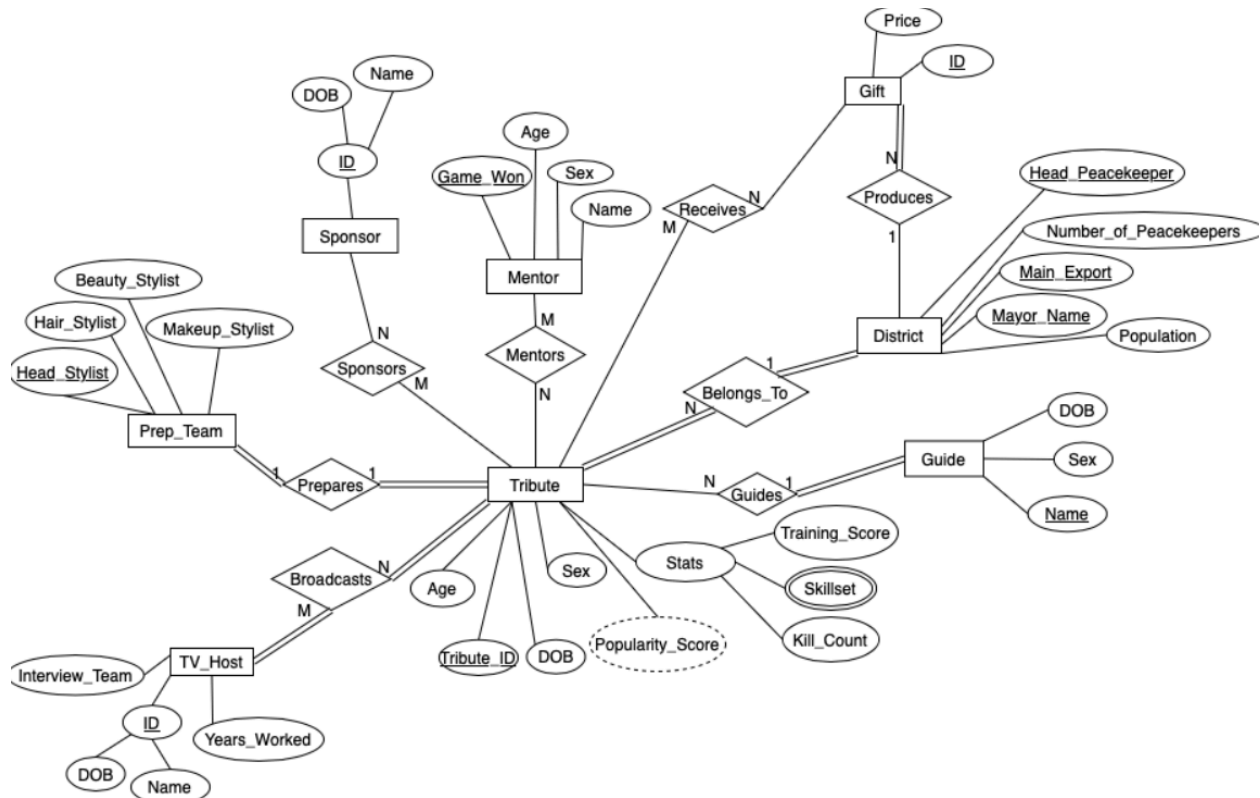
#### DISTRICT:

- Every district has a unique main export.
- Every district has a unique mayor's name.
- Every district has a population.
- Every district has a unique Head Peacekeeper name.
- Every district has a number of peacekeepers stationed in the district.
- A district must have several tributes.
- A district may produce many gifts.

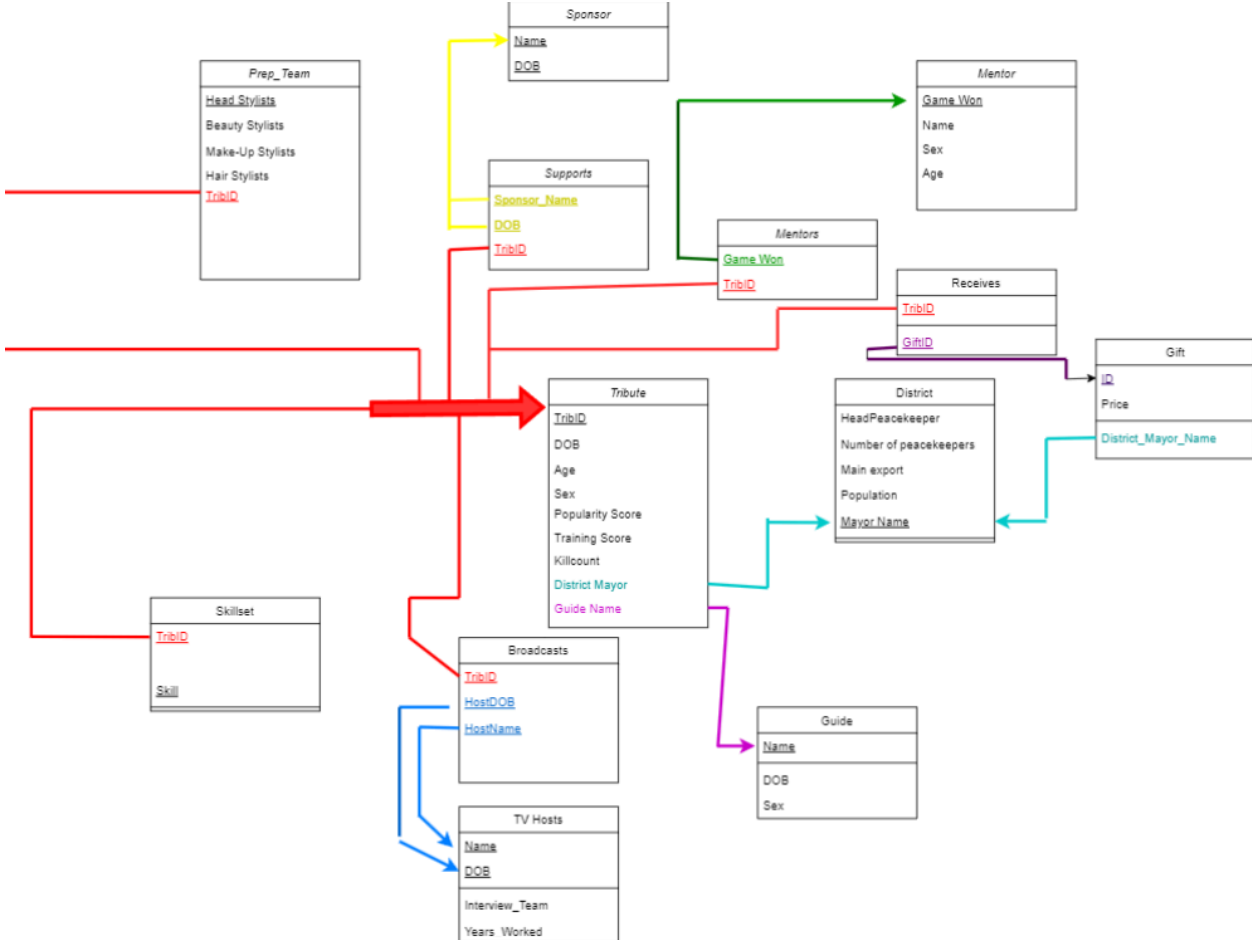
#### GIFT:

- Each gift has a price.
- Each gift has a unique ID number.
- A gift must be produced in a district.
- A gift may be given to many tributes.

# ER Diagram



RM Diagram



## Screenshots of Implementation

Query 1

hungergames

broadcasts - Table

Name:  Schema: hunger games

Column	Datatype	PK	NN	UQ	B...	UN	ZF	AI	G	Default / Expression
TribID	CHAR(9)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HostName	VARCHAR(45)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
HostDOB	DATE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<click to edit>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Column details 'TribID'

Column Name:

Charset/Collation:

Comments:

Datatype:

Default:

Storage: ☐ VIRTUAL ☐ STORED

☒ Primary Key ☒ Not NULL ☒ Unique

☐ Binary ☐ Unsigned ☐ ZeroFill

☐ Auto Increment ☐ Generated

Columns

Indexes

Foreign Keys

Triggers

Partitioning

Options

Apply

Revert

Query 1

hungergames

broadcasts - Table

tribute - Table

Name:

Schema: hunger games

Column	Datatype	PK	NN	UQ	B...	UN	ZF	AI	G	Default / Expression
TribID	CHAR(9)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
DOB	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Age	INT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Sex	CHAR(6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
popScore	INT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
TrainScore	INT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
KillCount	INT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
Mayor	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
GuideName	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<click to edit>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Column details 'TribID'

Column Name:

Charset/Collation:

Comments:

Datatype:

Default:

Storage: ☐ VIRTUAL ☐ STORED

☒ Primary Key ☒ Not NULL ☐ Unique

☐ Binary ☐ Unsigned ☐ ZeroFill

☐ Auto Increment ☐ Generated

Columns

Indexes

Foreign Keys

Triggers


Partitioning

Options

Apply

Revert

Query 1hunnergamesbroadcasts - Tabletribute - Table

Name: tributeSchema: hunger games

Foreign Key	Referenced Table
tribute_ibfk_1	`hunger games`.`guide`
tribute_ibfk_2	`hunger games`.`district`

<click to edit>

Foreign key details 'tribute\_ibfk\_1'

Column	Referenced Column
<input type="checkbox"/> TribID	
<input type="checkbox"/> DOB	
<input type="checkbox"/> Age	
<input type="checkbox"/> Sex	
<input type="checkbox"/> popScore	
<input type="checkbox"/> TrainScore	
<input type="checkbox"/> KillCount	
<input type="checkbox"/> Mayor	
<input checked="" type="checkbox"/> GuideName	Name

On Update: RESTRICT

On Delete: RESTRICT

Comment:



Administration

Schemas














## SCHEMAS



Q Filter objects

### ▼ **hunger games**

#### ▼ Tables

- >  broadcasts
- >  district
- >  gift
- >  guide
- >  mentor
- >  mentors
- >  prep\_team
- >  receives
- >  skillset
- >  sponsor
- >  supports
- >  tribute
- >  tv\_hosts

 Views

## Sample Data of database

Query 1 | hungergames | broadcasts - Table | tribute - Table | receives | receives - Table | tribute

Limit to 1000 rows

```
1 • SELECT * FROM `hunger games`.tribute;
```

100% | 1:1

Result Grid | Filter Rows: Search | Edit: | Export/Import: |

	TribID	DOB	Age	Sex	popScore	TrainScore	KillCount	Mayor	GuideName
▶	122345678	2003-04-25	15	M	5	2	3	Toad	Liam
	123245678	1999-12-05	10	F	3	5	5	Toad	Liam
	123456789	1996-11-08	12	F	10	8	1	Jose	Randy
	133557079	2001-05-28	13	M	8	7	2	Ronald	Linda
	239097392	2019-05-11	7	F	6	6	0	Wendy	Peter
	320547698	2000-08-27	17	M	6	5	0	Jose	Randy
	783009823	2010-01-23	12	F	6	9	0	Sanders	Ted
	907060302	1989-12-13	11	M	9	4	6	Wendy	Peter
	987654321	2004-08-12	9	F	9	9	0	Ronald	Linda
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid | Form Editor | Field Types

Query 1 | hungergames | broadcasts - Table | tribute - Table | receives | receives - Table | tribute | district

Limit to 1000 rows

```
1 • SELECT * FROM `hunger games`.district;
```

100% | 1:1

Result Grid | Filter Rows: Search | Edit: | Export/Import: |

	Mayor	HeadPeaceKeeper	MainExport	Population	NumPeaceKeepers
▶	Jose	Ralph	Coal	1000	670
	Ronald	Donald	Wheat	890	709
	Sanders	John	Wood	1020	1000
	Toad	Joe	Electricity	1202	980
	Wendy	George	Textiles	934	840
	NULL	NULL	NULL	NULL	NULL

Result Grid | Form Editor | Field Types



## Queries

1. The following query returns the tribute ID from the tribute who received the most expensive gift as well as the gift price.

```
1 SELECT T.tribID, G.price
2 FROM Tribute as T, Receives as R, Gift as G
3 WHERE T.TribID = R.TribID AND G.ID = R.GiftID AND G.Price >= ALL (SELECT price FROM Gift) ;
4
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
tribID	price			
783009823	230			

2. This query counts the number of tributes from each district.

```
1 • SELECT Mayor, COUNT(*) AS TributeCount
2 FROM Tribute
3 GROUP BY Mayor;
4
```

Result Grid		Filter Rows:	Export
100%	1:4	Search	
Mayor	TributeCount		
Jose	2		
Ronald	2		
Sanders	1		
Toad	2		
Wendy	2		

3. This query results in tributes who have a population score and training score higher than 6.

```
1 SELECT *
2 FROM Tribute
3 WHERE popscore > 6 AND TrainScore > 6;
4
5
```

100% 13:2

Result Grid Filter Rows: Search Edit: Export/Import

TribID	DOB	Age	Sex	popScore	TrainScore	KillCount	Mayor	GuideName
123456789	1996-11-08	12	F	10	8	1	Jose	Randy
133557079	2001-05-28	13	M	8	7	2	Ronald	Linda
987654321	2004-08-12	9	F	9	9	0	Ronald	Linda
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Result Grid Form Editor

4. This query results in the names of tributes who come from a district with a population greater than 500.

```
1 SELECT TribID
2 FROM Tribute
3 WHERE Mayor IN (
4     SELECT Mayor
5     FROM District
6     WHERE Population > 500
7 );
8
```

100% 14:1

Result Grid Filter Rows: Search Edit: Export/Import

TribID	
123456789	
320547698	
133557079	
987654321	
783009823	
122345678	
123245678	
239097392	
907060302	

5. This query finds the names of sponsors whose name starts with W:

```
1 • SELECT name, DOB
2 FROM Sponsor
3 WHERE name LIKE 'w%';
4
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	name	DOB		
▶	Wayne	2034-06-04		
	Willow	2056-08-30		
	Winne	2009-01-05		



6. This query finds the names of the head peacekeepers in districts with more than 10,000 people and more than 100 peacekeepers:

```
1 • SELECT HeadPeacekeeper
2 FROM district
3 WHERE population >= 1000 AND NumPeaceKeepers > 200;
4
```

Result Grid		Filter Rows:	Search	Export:
	HeadPeacekeeper			
▶	Ralph			
	John			
	Joe			

7. This query finds the age, killcount, and skill of the tributes who have a kill count higher than 2.

```
1 • SELECT T.Age, T.Killcount, S.Skill
2 FROM (Tribute as T INNER JOIN Skillset as S ON T.TribID = S.TribID)
3 WHERE T.Killcount > 2;
4
```

Result Grid			
Filter Rows: <input type="text"/>			
Export:  Wrap Cell Content: 			
	Age	Killcount	Skill
▶	15	3	Runner
	10	5	Knife
	11	6	Martial Arts

8. This query finds the number of gifts each tribute receives:

```
1 • SELECT TribID, COUNT(*)
2 FROM Receives
3 GROUP BY TribID;
4
```

100% 1:4			
Result Grid			
Filter Rows: <input type="text"/>			
	TribID	COUNT(*)	
▶	122345678	1	
	123456789	1	
	239097392	1	
	783009823	1	
	987654321	1	

## Conclusion:

What we learned/ found interesting:

“It was really interesting how connected everything is. It feels like a giant spider web and something new I learned from this particular project is how to create csv files. I also learned how to implement queries into our database and really helped me learn the concepts we have been learning.”-Lizett

“I learned how critical it is to stay organized and have a clear mind during the entirety of the process. During the pre-planning process, we had to make sure that the database would make logical sense and already started outlining the foreign keys, primary keys, etc. Then, during the ER diagram, it was crucial to have all of the appropriate relationships outlined so that later in the RM, it would go smoothly. In addition, all of these parts had to be communicated, concise, and clear so that we could pick back up from where each other left it off. Every single step was building up from the last one. Something that I found interesting is how something can come together into a little present (the database)” -Brittney

“I learned how to create a whole database from scratch and how to implement csv files. This project mainly taught me how to think in terms of querying, which I think will be a helpful skill in huge projects in my future career path. I learned the importance of primary keys, foreign keys, and the consequences to having many redundancies. While this project taught me how to view databases in general (how to create what I want into an ER diagram, translate ER to RM, and how RM is essentially the database itself in a visual representation), what I mainly found interesting was querying. Experimenting with it taught me how to correctly view the database. I see now that it really is a collection of sets and tuples- and I almost view it as a venn diagram for certain queries”- Steven