Final Project Guidance

1. DML for the physical data model **sql/ddl.sql**
2. Show indexes **sql/ddl.sql**
3. Provide results of -> select count(*) for each table **sql/db_total.sql**
4. Provide -> SQL statement (this could be many SQLs) for each story **sql/user-stories/user-stories-*.sql**
5. Identify reporting/analytics stories: Show SQL, query plan and output in a doc **sql/reporting-and-analytics.sql**
6. Identify 5 queries that you think requires optimization: provide SQL, query plan and query execution time: **sql/optimizations.sql**
   - Before & After optimization

No.	Table	COUNT(*)	Description
1	box_score	2,153,760	25 seasons * ~200 games * 15 players * 30 teams
2	coach	7,500	5 coaches per team * 50 years * 30 teams
3	donor	339,457	Random 339,457 donors
4	fan	10,000,000	Random 10,000,000 fans
5	fan_has_game	+27,121,270	Random attendance per game * 130,785 total games
6	game	130,785	150 seasons * ~200 games
7	game_has_referee	391,380	3 referees per game * 130,785 games
8	payment	4,999,999	339,457 donors + 4,660,000 shoppers +
9	player	67,500	Random 67,500 players
10	products	14,040	(3 departments * 4 colors * 7 products * 5 sizes + 4 one-size) * 30 teams
11	products_has_payment	2,031,994	Random puchased varying 1 – 6 items per transaction
12	referee	20,000	Random 20,000 referees
13	referee_has_season	60,000	Referees randomly assigned to seasons
14	season	150	3 seasons per year * 50 years
15	season_has_coach	12,150	Coaches randomly assigned to seasons
16	shopper	4,660,000	Random 4,660,000 shoppers
17	sponsor	20	20 Official NJBA Sponsors
18	sponsor_has_payment	542	20 Sponsors * 25 seasons
19	team	30	30 Official NJBA Teams
20	team_has_products	14,040	(3 departments * 4 colors * 7 products * 5 sizes + 4 one-size) * 30 teams
Subtotal		31,276,213	

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SSH Command Line – RDS

```
mysql -h <host name> -P 3306 -u <user name> -p
mysql -h njba-free-custom.ccrafimbe1lp.us-east-1.rds.amazonaws.com -P 3306 -u admin -p
```

Note: Prior to SSH, you will need to be added to the njba-security AWS RDS security group. Contact matthew@udel.edu.

Amazon RDS Configuration	t2.micro (4 read replicas – 3 t2.micro, 1 t2.medium)
endpoint	njba-free-custom.ccrafimbe1lp.us-east-1.rds.amazonaws.com
port	3306
username	admin
password	*********
default schema	njba

SSH Command Line – AWS EC2

```
ssh -i <path/to/your/pem/key> ec2-user@ec2-35-175-121-201.compute-1.amazonaws.com
```

NJBA	DB Size in Gigabytes
information_schema	0.000183105469
mysql	0.007590474561
njba	4.547500610352
performance_schema	0.000000000000
sys	0.000015258789