**IT214: Database Management System**

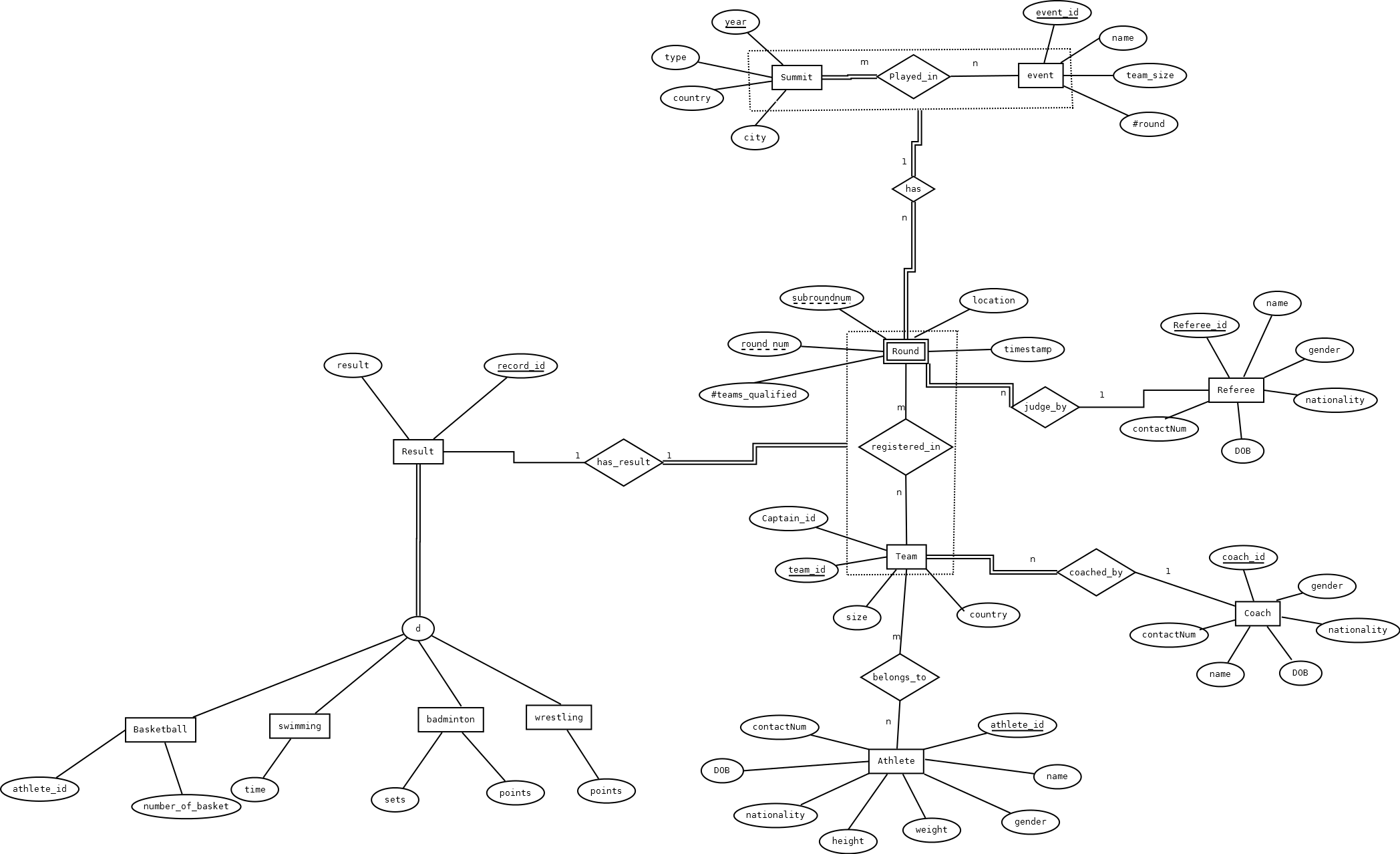
**Commonwealth Games Database Management System**

**Group Number: 3.12**

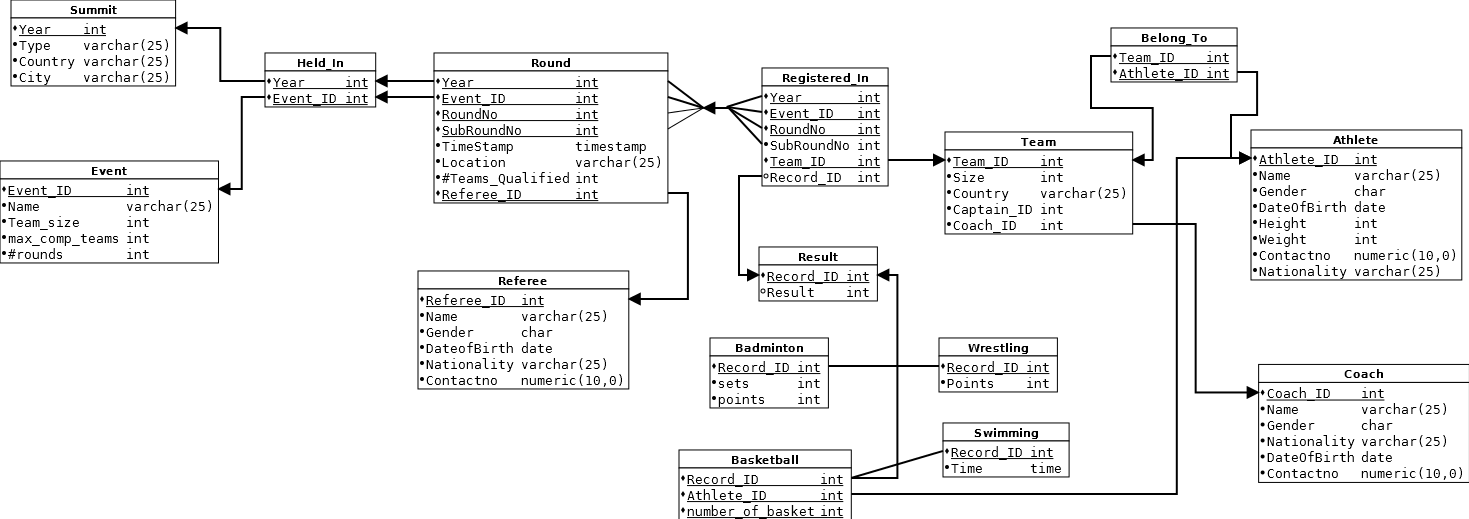
**Group Members:**

1. **Keshvi Bhimani: 201701186**
2. **Rohinee Sarvaiya:201701172**
3. **Jaykumar Dave:201701204**
4. **Rohan Prajapati: 201701218**

**ER Diagram:-**



**Relational Schema:-**



**Minimal FD Set:**

**Summit:-**

Primary Key: Year

Year🡪type

Year🡪Country

Year🡪city

**Event:-**

Primary Key: Event\_id

Event\_id🡪name

Event\_id🡪team\_size

Event\_id🡪max\_comp\_teams

Event\_id🡪#rounds

**Round:-**

Primary Key:- (year, event\_id, roundno, subroundno)

(year, event\_id, roundno, subroundno)🡪 timestamp

(year, event\_id, roundno, subroundno)🡪 location

(year, event\_id, roundno, subroundno)🡪 #teams\_qualified

(year, event\_id, roundno, subroundno)🡪 refree\_id

**Registered\_In:-**

Primary Key: (year, event\_id, roundno, subroundno,team\_id)

(year, event\_id, roundno, subroundno,team\_id)🡪 record\_id

(year, event\_id, roundno, subroundno,team\_id)🡪 result

**Team:-**

Primary key:team\_id

Team\_id🡪size

Team\_id🡪country

Team\_id🡪captain\_id

Team\_id🡪coach\_id

**Athlete:-**

Primary key: Athlete\_id

Athlete\_id🡪name

Athlete\_id🡪gender

Athlete\_id🡪dateofbirth

Athlete\_id🡪height

Athlete\_id🡪weight

Athlete\_id🡪contactno

Athlete\_id🡪nationality

**Coach:-**

Primary key: coach\_id

coach\_id 🡪name

coach\_id 🡪gender

coach\_id 🡪nationality

coach\_id 🡪dateofbirth

coach\_id 🡪contactno

**Referee:-**

Primary Key:- Referee\_id

Referee\_id🡪name

Referee\_id🡪gender

Referee\_id🡪dateofbirth

Referee\_id🡪nationality

Referee\_id🡪contactno

**BCNF Proof:**

Since in all relations there is no partial dependency and transitive dependency also every prime and non-prime attribute is

dependent upon the key, hence all table are in BCNF.