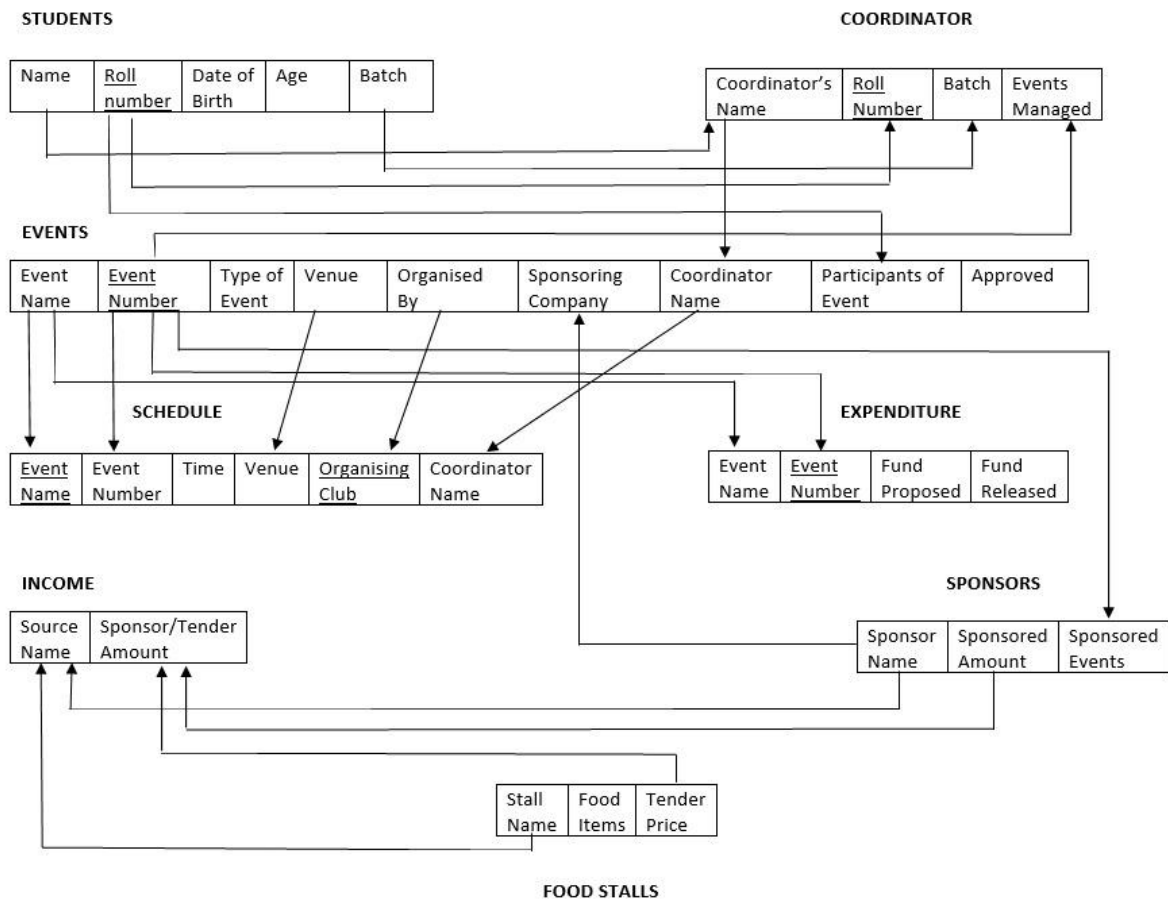
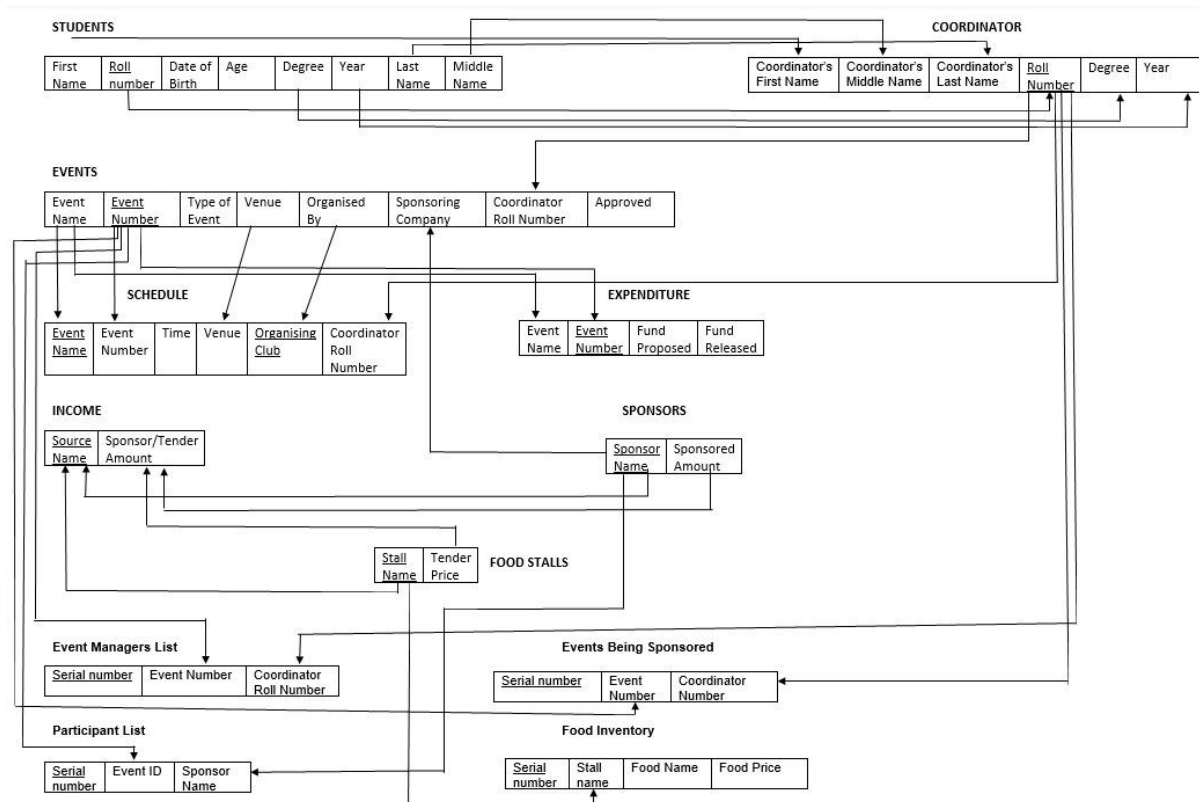


# The Original Relation Model



# The NF1 Relation Model



## STUDENTS

The Name attribute is a composite attribute which is split into First Name, Middle Name and Last Name.

The Batch attribute is a composite attribute which is split into degree and year.

## SCHEDULE

The Coordinator Name attribute is a composite attribute which is replaced by Coordinator roll Number.

## EXPENDITURE

No changes

## Sponsor

Sponsor Name is added as a primary key

The Sponsored Events attribute is a multi valued attribute that is removed.

## Food Stalls

Stall name is being made as primary key

The Food items attribute is a multi valued attribute that is removed.

## EVENTS

The Participant of Event attribute is a multi valued attribute that is removed.

The Coordinator Name attribute is a composite attribute which is replaced by Coordinator roll Number.

## COORDINATOR

The Coordinator Name attribute is a composite attribute which is split into Coordinator's First Name ,Coordinator's Middle Name and Coordinator's Last Name .

The Batch attribute is a composite attribute which is split into degree and year .

The Event Managed attribute is a multi valued attribute that is removed .

Adding

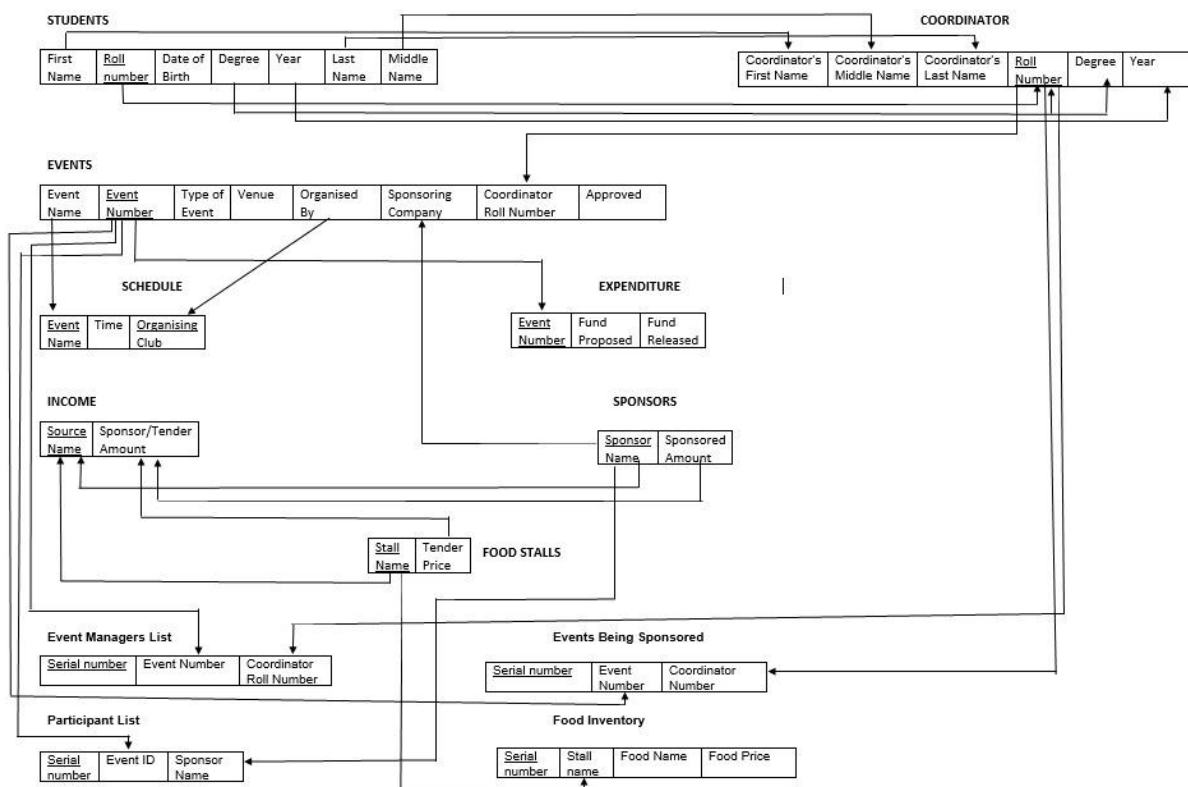
**Event\_Managers\_List** (pk , Event Number , Coordinator Number) ,

**Events\_Being\_Sponsored** (pk, Event id , Sponsors Id)

**Participant List** (pk, ParticipantRoll Number, Event ID)

**Food\_Inventory** (pk, Stall name,Food Name,Food Price)

# The NF2 Relation Model



## STUDENTS

Age is removed as it entirely depends on DOB as it is totally functionally dependent

New entity is not required to store age and DOB relation.

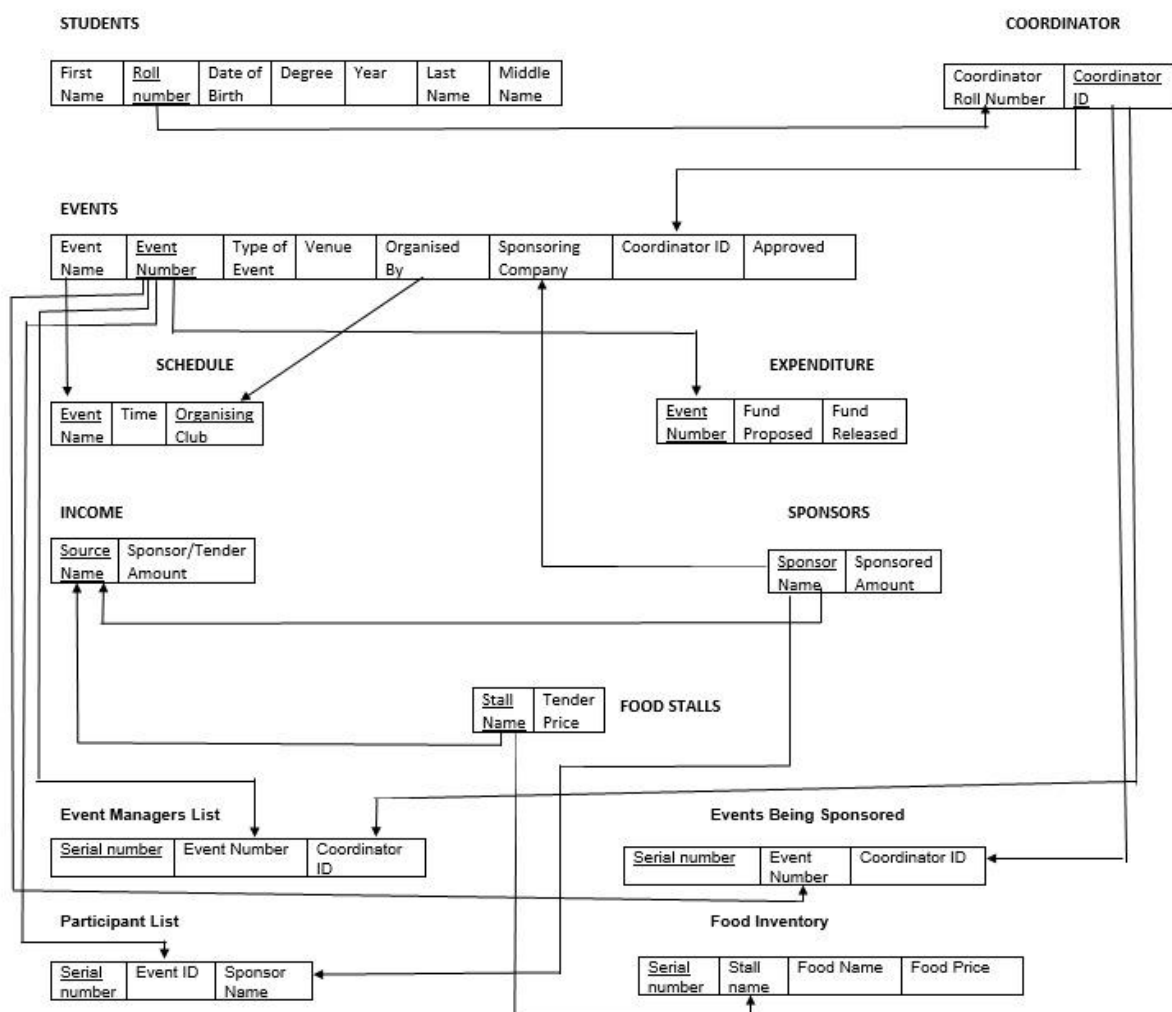
## SCHEDULE

Event number, Venue, and Coordinators Number are partially dependent on primary key as it is related to Event name in Event hence are removed and no new entity is required as it is already present in **EVENTS** entity.

## EXPENDITURE

Event name is dependent on the primary key as it is related to the Event number.

# The NF3 Relation Model



Haven't able to find transitive functional dependency in our dbms (coordinator name had the violation but removed in 1 NF due it being a composite attribute) after 2 NF

Adding Coordinator ID to the **Coordinator** entity and remove Degree, Year, First name , last name and middle name of coordinator due to repetition of **Students**

Coordinator ID is made as the Primary key of the coordinator .

And all the foreign key with coordinator roll number is changed to coordinator ID