

# 1 Competition Overview

The NCAA Basketball Tournament is one of the most prestigious college basketball competitions in the United States. The tournament is structured into different phases, starting with the **Regular Season**, followed by the **Play-offs**, and concluding with the **Tournament**. It involves multiple **conferences**, teams, and stakeholders, also including coaches, referees, and spectators. The goal of this analysis is to understand the system dynamics and interactions within this tournament.

## 2 Systems Analysis Report

### 2.1 Systemic Analysis

#### 2.1.1 Identification of Key Elements

The NCAA Basketball Tournament system comprises the following essential components:

- **Season:** The entire period during which the NCAA tournament takes place.
- **Regular Season:** The initial phase of the season.
- **Playoff:** The knockout stages.
- **Tournament o Final 4:** The final phase of the tournament.
- **Conferences:** Groups of teams based on region or category.
- **Teams:** Participating teams.
- **Coach:** The head coach of each team.
- **Match:** Individual games within the tournament.
- **Cities:** Locations where the games are played.
- **Referee:** Officials in charge of the matches.
- **Fans:** Supporters and spectators.
- **Field:** Courts where the matches are played.

#### 2.1.2 Mapping Relationships

The tournament's elements interact in various ways:

The **Season** is the entire period in which the NCAA tournament takes place.

The **Season** is divided into the **Regular Season**, **Playoff**, and **Final 4**.

The **Regular Season** is the beginning of the **Season**.

The **Conferences** are divisions within the **Regular Season**.

The **Conferences** are made up of **Teams**.  
The **Coach** trains the **Teams** for the **Matches**.  
The **Matches** are played on **Fields** in different **Cities**.  
Each **Match** includes **Fans** and **Referees**.  
After the **Regular Season** come the **Playoffs**.  
Based on the results of the **Playoffs**, teams advance to the **Final 4**.  
The winner of the **Final 4** becomes the champion of the **Season**.

## 2.2 Complexity and Senitivity

Depending on the **Coach**, the **Team** plays with a specific strategy.  
According to the **fixture**, the stages may vary.  
Depending on the **City**, **Teams** may perform differently.

## 2.3 Chaos and Randomness

Favoritism or poor decisions from the **Referee**.  
Conditions of the **Field**.

## 2.4 Conclusion