1. What is MIST and what are their issues?
The Muslim Inter-Scholastic Tournament (MIST) is a three-day annual event that consists of competitions and workshops targeted for high-school students. In 2012, there were over 750 participants and 100 volunteers registered.

2. How does MIST currently schedule?
The As-is business process diagram created on the basis of information collected through client interviews.

3. Our approach
The objective, constraints and results identified using the As-is process.

Objective:
- Minimization of:
  - Human error i.e. double booking & conflicts
  - Delays on the day of tournament

Constraints:
- Time
- Budget
- Room availability

End result to be achieved:
- Reduction in time taken to schedule
- Accommodation of changes to schedule

Prototype
The prototype created used the algorithms and the logic behind the As-is business process.

4. Scheduling Algorithms
The tournament schedule is composed of four different aspects. Algorithms for each are described below:

1. Quiz Bowl Preliminary Rounds
   This portion of the schedule assigns four teams to each game using a variation of the Hungarian Algorithm. Minimizing the number of times a team plays the same opponent.

2. Debates Preliminary Rounds
   This portion of the schedule assigns two teams to each debate using a variation of the assignment algorithm.

3. Elimination Rounds
   This portion of the schedule takes the winners from each round and assigns them to games in the next round.

4. Rooms & Time Slots
   This portion of the schedule assigns two teams to each debate using a variation of the assignment algorithm.

5. Measures of Success
The final product will be tested against the following attributes to measure success:
- Time savings in terms of scheduling
- Sustainability of system for three to five years
- Reliability of system i.e. making it error-free
- Integration with existing system

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