# Cricket.com: Use case 2 for data scientist

1. Dataset
   1. usecase\_players.csv – list of players from 2 teams in squad, along with credits for each.
2. Objective:
   1. Write an algorithm to create an optimal team of 11 players from across both teams, such that your team score maximum points as per the following constraints:
      1. Team constraints:

* Min players from each team = 4
* Max players from each team = 7
  + 1. Player Role:
* No of wicketkeepers = 1
* No of batsman = (3-5)
* No of all-rounders = (1-3)
* No of bowlers = (3-5)
  + 1. Credits:
* Sum of all player credits must be less than or equal to 100
  + 1. Points System:
* Each run scored by your player = 1 point
* Each 4 or 6 scored by your player = 2 points
* Each catch/stumping/runout by your player = 5 points
* Each wicket taken by your player = 10 points

1. Instructions:
   1. Use data files as described above.
   2. You can use any external data as you wish.
   3. If any external data is used, the source and reason of using it must be explained.
   4. Also, write the code as you would write for real system, following all coding standards and guides.
   5. IMPORTANT: You can use Jupyter notebooks for EDA etc, but final script should be in the form of one or more Python scripts (.py files).
   6. Input for your algorithm: the csv file provided.
   7. Output of you algorithm: a new csv file with 11 players meeting above constrains.
2. Expected output:
   1. A new csv file with 11 players meeting above constrains (similar to sample\_solution.csv).
   2. Source code
   3. A write-up describing overall approach to solution.

Please note, we are more interested in the approach to the solution than the accuracy of predictions.