BSc. Artificial Intelligence & Data Science

Level 04

CM 1601

PROGRAMMING FUNDAMENTALS

**T20 Cricket Tournament**

**COURSEWORK-I REPORT**

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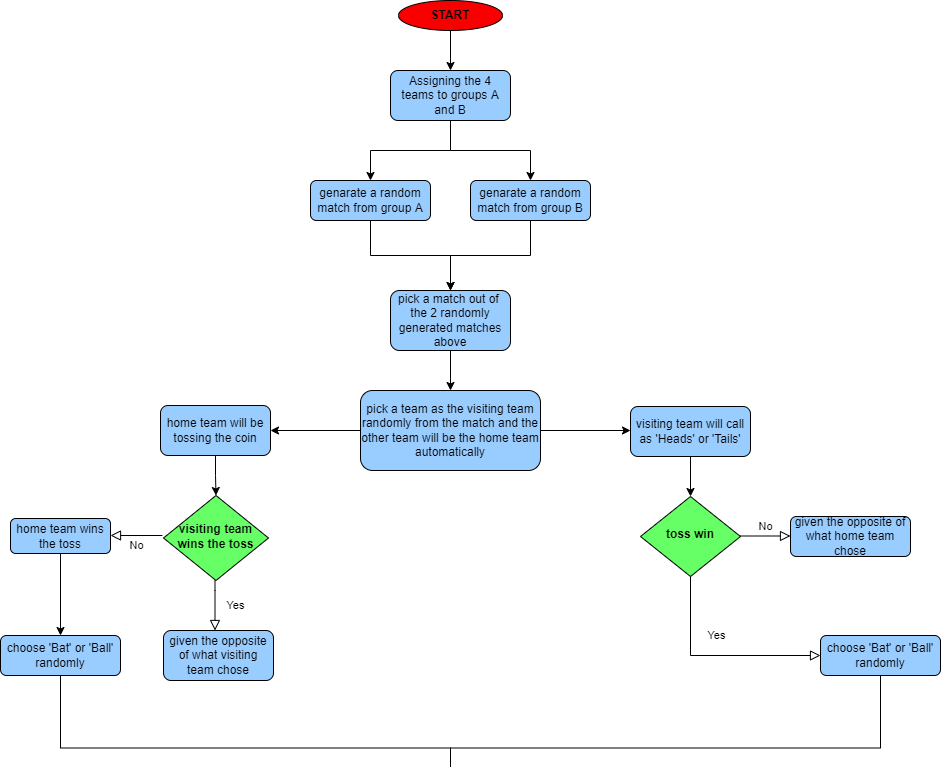
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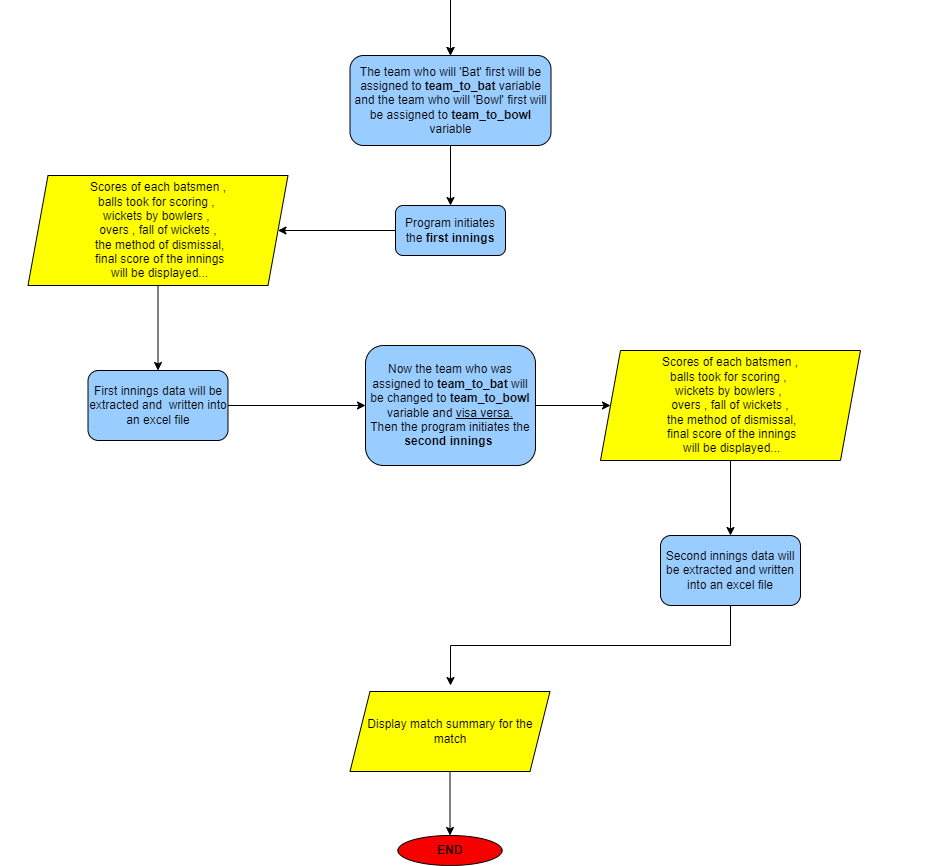
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Generate random match Flowchart





Source Code

Assumptions

* User can only edit player names.
* There are no past records of players prior to this tournament.
* Only ways of getting out is by ‘Bowled’,’LBW’ or ‘Caught’ by the bowler himself.
* The way of getting out is when the **batter\_score** is equal to **bolwer\_score** (just like a hand cricket match), otherwise the batsmen will get runs.

Test Plan

01)Generating two teams from the two groups randomly and picking one match

* Input :

match\_between\_A = random.sample(Group\_A, 2)

match\_between\_B = random.sample(Group\_B, 2)

chosen\_match = [match\_between\_A,match\_between\_B]

match\_between = random.choice(chosen\_match)

print(match\_between)

* Expected output:

Ex: Punjab Pakistan vs Kolkata England

* Actual output:

Text

Description automatically generated

02)Assigning the two picked teams from the match as Home team and Visiting team

* Input :

coin = ["heads", "tails"]

options = ['bat','bowl']

visiting\_team = random.choice(match\_between)

if visiting\_team in match\_between:

    match\_between.remove(visiting\_team)

home\_team = match\_between[0]

print('Home Team - ', home\_team)

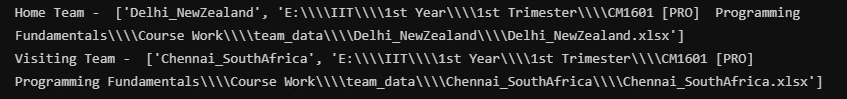
print('Visiting Team - ', visiting\_team)

* Expected output:

Home team – Delhi New Zealand

Visiting team – Chennai South Africa

* Actual output:



03)Displaying batting card without index column

* Input :

#add batsman\_list to score\_card\_first\_ing

score\_card\_first\_ing = batsman\_list

# sort score\_card\_first\_ing to the original batting order

sorted\_list = sorted(score\_card\_first\_ing, key=itemgetter(5))

# convert score\_card\_first\_ing to a data frame for displaying

df\_score\_card\_first\_ing = pd.DataFrame(sorted\_list)

df\_score\_card\_first\_

* Expected output:

A picture containing text, monitor, screen, cellphone

Description automatically generated

* Actual output:

A picture containing text, road, cellphone, monitor

Description automatically generated

04)Showing a summary of an innings’ top performers

* Input :

print(team\_to\_bat[0].replace('\_', ' '))

print(df\_score\_card\_first\_ing\_without\_index.nlargest(11, 'Runs'))

print('\n',team\_to\_bowl[0].replace('\_', ' '))

print(df\_bowler\_list\_first\_ing\_without\_index.nlargest(5, 'Wickets'))

print('\nTotal',first\_ing\_total,'/',first\_ing\_wickets)

* Expected output:

Graphical user interface, text

Description automatically generated

* Actual output:

Text

Description automatically generated

05)Converting the random match generation code into a function

* Input :

def generate\_random\_match():

    match\_between\_A = random.sample(Group\_A, 2)

    match\_between\_B = random.sample(Group\_B, 2)

    chosen\_match = [match\_between\_A, match\_between\_B]

    match\_between = random.choice(chosen\_match)

print(match\_between)

* Expected output:

Ex: Punjab Pakistan vs Kolkata England

* Actual output:

