Coding Test

Instructions: **Duration: 1 hours**

- Free to use Programming Software R or Python.
- Make necessary Assumption's wherever needed (Mention assumption in comments).
- Save the code as **.R** or **.py file**
- Save output as .csv or .xlsx file for each problem

Problem 1: Employee History

Data – Refer "Employee.xlsx"

> **Employee data of Organization XYZ**

> **DOJ – Date of joining**

> **DOL- Date of leaving (Blank means Employee has not left)**

Calculate the following

1. **Total no of employee (organization size) at each year end**
2. **Average employee Tenure at each year end**
3. **Attrition rate for each year (total no employee left in year / Total employee at year end)**
4. **For each employee match email with first name and last name to get score for match to authenticate email belongs to person**

Output format

Year	# of Employee	Avg Tenure	Attrtion rate
2010	X	X	X
2011	X	X	X
2012	X	X	X
2013	X	X	X
2014	X	X	X
2015	X	X	X
2016	X	X	X
2017	X	X	X
2018	X	X	X

Employee	email match score
1	0.8
2	0.2
:	
:	
999	0.6
1000	0.7

Problem 2: Cricket Commentary

Data – Refer "Commentary.txt"

Text file has commentary of a cricket match for India batting in descending order of balls delivered

Calculate following

1. **List balls(delivery) when "Four" runs were scored and extract batsman and bowler for the same**
2. **List balls(delivery) when "Yorker" was bowled and extract batsman and bowler for the same**

Output format for both problems

Delivery	Batsman	Bowler
17.5	Virat Kohli	Morne Morkel
:	:	:
:	:	: