AI1103: Assignment 2

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Download all python codes from

https://github.com/Santosh-Dhaladhuli2003/ AI1103/blob/main/Assignment%202/ Assignment%202.py

and latex codes from

https://github.com/Santosh-Dhaladhuli2003/ AI1103/blob/main/Assignment%202/ Assignment%202.tex

1 GATE EE 2013 QUESTION No. 61

What is the chance that a leap year, selected at random, will contain 53 Saturdays?

- 1) $\frac{2}{7}$ 2) $\frac{3}{7}$ 3) $\frac{1}{7}$ 4) $\frac{5}{7}$

2 Solution

Let X be a random variable We Define, $X \in 0,1$

ı	D/II (I)	1 6 52 6 1
	P(X=0)	denotes for 52 Saturday
	P(X = 1)	denotes for 53 Saturdays

TABLE 4:
$$Pr(X = x)$$

$$\implies$$
 Remaining Days = $366 - 364 = 2$ (1)

$$\implies \Pr(X=1) = \frac{2}{7} \tag{2}$$

... The correct answer is **Option A**

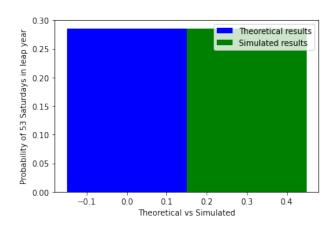


Fig. 4: Simulation for Pr(X = 1)