

Probability and Statistics (IT302) Lab Program-5

Reg. No 181067181IT102 - 181762181IT141

Assume that X and Y have the following joint probability function:

$f(x, y)$		x			
		D	E	.	.
y	A	0.1	0.3	.	0.1
	B	0.5	0.1	.	0.1
	.	.	.	.	0.2
	.	.	.	.	0.3
	G	0.1	0.6	.	0.4

Use any one of the programming languages C/Python/Java/C++ to compute (a) μ_X and μ_Y , (b) expected value of $g(X, Y) = 2XY$. Program should consider given input file (.xlsx) that consists of set of test cases and it should consider one test case at time to compute the aforesaid. Further, it should stop only after completion of all test cases. For each test cases it should display intermediate results as well as final output on terminal and also should store onto a separate output file. For invalid test cases, it should display an error message on the terminal and the same should be stored on a separate output file.

Reg. No 181481181IT143 - 181034181IT232

Assume that X and Y have the following joint probability function:

$f(x, y)$		X			
		D	E	.	.
y	A	0.1	0.3	.	0.1
	B	0.5	0.1	.	0.1
	.	.	.	.	0.2
	.	.	.	.	0.3
	G	0.1	0.6	.	0.4

Use any one of the programming languages C/Python/Java/C++ to compute (a) μ_X and μ_Y , (b) **expected value of $g(X, Y) = X^2 + Y^2$** . Program should consider given input file (.xlsx) that consists of set of test cases and it should consider one test case at time to compute the aforesaid. Further, it should stop only after completion of all test cases. For each test cases it should display intermediate results as well as final output on terminal and also should store onto a separate output file. For invalid test cases, it should display an error message on terminal and the same should be stored on a separate output file.

Reg. No 1181579181IT233 - 181047181IT254

Assume that X and Y have the following joint probability function:

$f(x, y)$		X			
		D	E	.	.
y	A	0.1	0.3	.	0.1
	B	0.5	0.1	.	0.1
	.	.	.	.	0.2
	.	.	.	.	0.3
	G	0.1	0.6	.	0.4

Use any one of the programming languages C/Python/Java/C++ to compute (a) μ_X and μ_Y , (b) **expected value of $g(X, Y) = 2X^2 + Y^2 + 2XY$** . Program should consider given input file (.xlsx) that consists of set of test cases and it should consider one test case at time to compute the aforesaid. Further, it should stop only after completion of all test cases. For each test cases it should display intermediate results as well as final output on terminal and also should store onto a separate output file. For invalid test cases, it should display an error message on terminal and the same should be stored on a separate output file

Sample Test Cases

See the attached excel file

Email subject should be PAS(IT302)-Lab-Program-5-Related-Files

File name of the program : RegisterNo_IT302_P5 (P5 indicates Lab Program Number-5)

File name of the Output File : RegisterNo_IT302_P5_Output_TC1.txt

(TC1 indicates output for the first test case, similarly, for other test cases TC2, TC3, TC4, TC5, TC6)

Date of Online Laboratory : 7th September 2020, Monday

Deadline of Submission : 7th September 2020, Monday (on or before 6:00PM)

Submit program file and all output files (output.txt) to the Email ID mentioned in fourth column of the below Table.

Note:

- Clarify doubt(s) (if any) only on 7th September 2020 Monday at 2:00PM.
- No/Zero marks for incomplete submission/incomplete program.
- Appropriate marks will be deducted for any of the submission instructions violated.
- No/Zero Marks for submission to inappropriate evaluator.
- Only first submission will be considered for evaluation.
- Program should check all types of input conditions and not only restricted to given test case inputs. Otherwise appropriate marks will be deducted.
- Appropriate marks will be deducted either intermediate results are not stored onto a separate output file or not displayed on the terminal.
- Appropriate marks will be deducted if all outputs written into a single output file.
- Discuss with evaluator only on said date and time if any doubt(s) related to lab evaluation marks. No communication will be entertained on any mode (email/SMS/phone call etc.) on any day/time except give clarification schedule by the evaluator.
- Deduction of marks for late submission (after submission deadline)

6:01PM - 6:30 PM	0.5M
6:31PM - 7:00 PM	1M
7:01PM - 8:00 PM	2M
8:01PM - 9:00 PM	4M

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5	181271181IT106	ANIRUDDH RAVICHANDAN PATIL	
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16	181635181IT117	Harsh Agarwal	
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26	181352181IT127	Meghna Suraj Kashyap	
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31	181516181IT132	P AKSHARA	
32	181198181IT133	Prajna N Hebbar	
33	181189181IT134	Prasad Bapu Jagtap	
34	181082181IT135	Priyanka B G	
35	181074181IT136	Raj Kishore Sethi	
36	181431181IT137	RAVI PRAKASH	
37	181439181IT138	ROHIT KUMAR SAHU	
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66	181058181IT217	Harshvardhan R	
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