38.03.02 "

22 2022 .

: 2022/2023 - 2025/2026

,								
, ,			1	2	3	4	(	1
		0.40		00	00			
	Data Culture	240 4	60 0	60	60 4	60		
1	Data Culture  Data Science	3	0	0	3	0		
2	Data Science			_	3			
2	·	0		0				
3		0			0			
4	·	0		0				
5	·	1			1			
6		0		0				
7		0	0					
	Major	170	46	45	36	43		
		84	27	29	16	12		
		84	27	29	16	12		
1		6			_	6		
2		5	6		5			
3 4		6 4	6	4				
5	1	5	5	4				
6	'	4		4				
7		6			6			
8	: 21	4	4		-			
9		5	5					
10		4		4				
11		4		4				
12		3		3				
13		4		4				
14		6				6		
15		3	3					
16		5			5			
17		6		6				
18		4	4					
		86	19	16	20	31		
		26	0	5	5	16		
4	(1 4)	10	0	5	5	0		
2		10 10		5 5	5 5			
3		10		5	5	3		
		10			] 5	<u>, s</u>	I	

1		10		- F	- F	2	
4		10	_	5	5 0	3	
	(4 5)	16	0	0	0	16	
1	,	4				4	
'		4				4	
2		4				4	
2 3 4 5		+ + +	+			7	
3		4				4	
4		4				4	
5		4				4	
		54	17	9	13	15	
1		5	17 5	i i	10	10	
1		5	3				
2		3				3	
3		3		3			
		]		]			
4							
4		4			4		
			+				
5	•	3		3			
6		4	4				
7		4				4	
'		4				4	
	Python	3	+	3			+
0	Python	3	+	<u> </u>			+
9		4	1			4	
10		4			4		
11	•	4				4	
12		5	1		5		
8 9 10 11 12 13		4	4		J		<del> </del>
13							
14	n n	4	4				
	п						
		6	2	2	2	0	
1	"SWOT- " - "	2	2	_	_		
1 2	3001-	2					
		2		2			
3	II II	2			2		
	Minor	20	0	10	10	0	
1	Minor Minor	2 20 20	0	10 10	10 10	0	
1	Minor Minor	20		10	10		
1	Minor Minor	20	0	10	10	1	
	Minor	20 1 1		10 10 0 0	10 10 0 0	1 1	
1	Minor	20 1 1 1	0	10 0 0	10 0 0	1 1 1	
	Minor Minor Project Proposal	20 1 1 1	0	10 0 0	10 0 0	1 1 1	
1	Minor	20 1 1 1 1 0	0	10 0 0	10	1 1	
	Minor	20 1 1 1 0 0	0 0	10 0 0	10 0 0	1 1 1 0	
1	Minor	20 1 1 1 0 0	0 0	0 0 0 0 0	0	1 1 1 0	
1	Minor	20 1 1 1 0 0 1	0 0	10 0 0	10 0 0	1 1 1 0	
1	Minor	20 1 1 1 0 0 1 1	0 0 0	10 0 0 0 0 0 0 0	0 0 0 0 0	1 1 1 0	
1	Minor	20 1 1 1 0 0 0 1 1 1 1	0 0 0 0 0 0	10 0 0 0 0 0 0 0	0 0 0 0 0	1 1 1 0	
1	Minor	20 1 1 1 0 0 0 1 1 1 1	0 0 0 0 0 0	10 0 0 0 0 0 0 0	0 0 0 0 0	1 1 1 0	
1 1	Minor	20 1 1 1 0 0 0 1 1 1 1 14 12	0 0 0	10 0 0 0 0 0 0 0	0 0 0 0 0	1 1 1 0 0	
1 1	Minor	20 1 1 1 0 0 0 1 1 1 1 1 14 12	0 0 0 0 0 0 0	10 0 0 0 0 0 0 0	0 0 0 0 0	1 1 1 0	
1 1 1 2	Minor	20 1 1 1 0 0 0 1 1 1 1 1 14 12 4	0 0 0 0 0 0 0 9 8	10 0 0 0 0 0 0 0	0 0 0 0 0	1 1 1 0 0	
1 1	Minor	20 1 1 1 0 0 0 1 1 1 1 1 14 12 4 4	0 0 0 0 0 0 0 9 8	10 0 0 0 0 0 0 0	10 0 0 0 0 0 0	1 1 1 0 1 1 1 1 4 4 4	
1 1 1 2	Minor	20 1 1 1 0 0 0 1 1 1 1 1 14 12 4 4	0 0 0 0 0 0 0 9 8	10 0 0 0 0 0 0 0	0 0 0 0 0	1 1 1 0 0	
1 1 1 2 3	Minor	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4	0 0 0 0 0 0 0 9 8	10 0 0 0 0 0 0 0	10 0 0 0 0 0 0	1 1 1 0 1 1 1 1 4 4 4	
1 1 2 3 1	Minor	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2	0 0 0 0 0 0 0 9 8	10 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0	1 1 1 0 1 1 1 1 4 4 4	
1 1 1 2 3	Minor	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1	0 0 0 0 0 0 0 9 8 8 4 4 1	10 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0	1 1 1 0 0 1 1 1 4 4 4	
1 1 2 3 1	Minor  Project Proposal	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1 1 1 30	0 0 0 0 0 0 0 9 8 8 4 4 1 1	10 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0	1 1 1 0 0 1 1 1 4 4 4	
1 1 1 2 3	Minor	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1 1 30 9	0 0 0 0 0 0 0 9 8 8 4 4 1	10 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0	1 1 1 0 0 1 1 1 4 4 4	
1 1 1 2 3 1 2	Minor  Project Proposal	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1 1 30 9	0 0 0 0 0 0 0 9 8 8 4 4 1 1	10 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0	1 1 1 0 0 1 1 1 4 4 4 4 4 1 1 9 2	
1 1 1 2 3 1 2	Minor  Project Proposal	20 1 1 1 0 0 0 1 1 1 14 12 4 4 4 2 1 1 30 9	0 0 0 0 0 0 0 9 8 8 4 4 1 1	10 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0	1 1 1 0 0 1 1 1 4 4 4 4 4 1 1 9 2	
1 1 1 2 3	Minor  Project Proposal	20 1 1 1 0 0 0 1 1 1 14 12 4 4 4 2 1 1 30 9 9	0 0 0 0 0 0 9 8 8 4 4 1 1	10 0 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0 1 1 0	1 1 1 0 0 1 1 1 4 4 4 4 4 1 1 9 2 7	
1 1 1 2 3 1 2	Minor  Project Proposal	20 1 1 1 0 0 0 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7	0 0 0 0 0 0 0 9 8 8 4 4 1 1	10 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2	
1 1 1 2 3 1 2	Minor  Project Proposal	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7 18	0 0 0 0 0 0 9 8 8 4 4 1 1	10 0 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 1 1 9 2 7	
1 1 1 2 3 1 2	Project Proposal  -	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 0 0 0 0 9 8 8 4 4 1 1 5 0	10 0 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0 1 1 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2	
1 1 1 2 3 1 2 1 2	Project Proposal  -	20 1 1 1 0 0 0 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7 18 2 1 1 5	0 0 0 0 0 0 9 8 8 4 4 1 1 5 0	10 0 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2	
1 1 1 2 3 1 2 1 2	Project Proposal  - : SWOT-	20 1 1 1 0 0 0 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7 18 2 1 1 5	0 0 0 0 0 0 9 8 8 4 4 1 1	10 0 0 0 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2	
1 1 2 3 1 2 1 2 2 3 3 4	Project Proposal  Project Proposal  -  : SWOT- : -	20 1 1 1 0 0 0 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7 18 2 1 5 5	0 0 0 0 0 0 9 8 8 4 4 1 1 5 0	10 0 0 0 0 0 0 0 0 0	10 0 0 0 0 0 0 0 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2	
1 1 1 2 3 1 2 1 2	Project Proposal  - : SWOT-	20 1 1 1 0 0 0 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7 18 2 1 5 5 5	0 0 0 0 0 0 9 8 8 4 4 1 1 1 5 0	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 0	10 0 0 0 0 0 0 0 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 7 2 7 2 2	
1 1 2 3 1 2 1 2 2 3 3 4	Project Proposal  Project Proposal  -  : SWOT- : -	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7 18 2 1 5 5 5	0 0 0 0 0 0 0 9 8 8 4 4 4 1 1 1 5 0	10 0 0 0 0 0 0 0 0 0 0 0 0 0 5 0	10 0 0 0 0 0 0 0 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2 2	
1 1 2 3 1 2 1 2 2 3 3 4	Project Proposal  Project Proposal  -  : SWOT- : -	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 4 2 1 1 30 9 2 7 18 2 1 5 5 5 5 3 3	0 0 0 0 0 0 9 8 8 4 4 1 1 1 5 0	10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 0	10 0 0 0 0 0 0 0 1 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2 2	
1 1 1 2 3 1 2 1 2 1 2 3 4	Project Proposal  Project Proposal  -  : SWOT- : -	20 1 1 1 0 0 0 1 1 1 1 14 12 4 4 4 2 1 1 30 9 2 7 18 2 1 5 5 5	0 0 0 0 0 0 0 9 8 8 4 4 4 1 1 1 5 0	10 0 0 0 0 0 0 0 0 0 0 0 0 0 5 0	10 0 0 0 0 0 0 0 1 0 1 1 9 0	1 1 1 0 0 1 1 1 4 4 4 4 4 9 2 7 2 2	