tol	С	max_iter	training f1	valid f1	training f1 for each technique
0.001	1e-05	100	0.3626	0.3568	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2315, 0.0, 0.0, 0.5297, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	1e-05	200	0.3626	0.3574	$\begin{bmatrix} 0.0, 0.0, 0.0, 0.0, 0.0, 0.2326, 0.0, 0.0, 0.5297, 0.0, 0.0, 0.0, 0.0, 0.0 \end{bmatrix}$
0.001	1e-05	300	0.3626	0.3571	$\begin{bmatrix} 0.0, 0.0, 0.0, 0.0, 0.0, 0.2354, 0.0, 0.0, 0.5296, 0.0, 0.0, 0.0, 0.0, 0.0 \end{bmatrix}$
0.001	3e-05	100	0.3679	0.3624	[0.0, 0.0, 0.0, 0.0, 0.0, 0.288, 0.0, 0.0, 0.5358, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	3e-05	200	0.3679	0.3617	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2891, 0.0, 0.0, 0.5358, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	3e-05	300	0.3677	0.3619	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2891, 0.0, 0.0, 0.5355, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.0001	100	0.3756	0.3686	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3418, 0.0, 0.0, 0.5469, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.0001	200	0.375	0.3682	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3416, 0.0, 0.0, 0.5463, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.0001	300	0.3749	0.3684	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3383, 0.0, 0.0, 0.5464, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.0003	100	0.3813	0.3725	[0.0045, 0.0463, 0.0, 0.0, 0.0, 0.3655, 0.0, 0.002, 0.5548, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.
0.001	0.0003	200	0.381	0.3728	[0.006, 0.0501, 0.0, 0.0, 0.0, 0.3663, 0.0, 0.0, 0.5543, 0.0, 0.0, 0.0, 0.0,
0.001	0.0003	300	0.3811	0.3722	[0.006, 0.0477, 0.0, 0.0, 0.0, 0.3649, 0.0, 0.0021, 0.5546, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.
0.001	0.001	100	0.4338	0.3881	[0.2763, 0.4262, 0.0212, 0.1318, 0.4165, 0.5082, 0.0939, 0.2723, 0.5743]
0.001	0.001	200	0.4333	0.3887	[0.2803, 0.4228, 0.0183, 0.1491, 0.4153, 0.5063, 0.0963, 0.2682, 0.5739]
0.001	0.001	300	0.433	0.3872	[0.2846, 0.4189, 0.0246, 0.1354, 0.4165, 0.5079, 0.0953, 0.2711, 0.5735]
0.0001	1e-05	100	0.362	0.3568	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2346, 0.0, 0.0, 0.5289, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	1e-05	200	0.3626	0.3563	[0.0, 0.0, 0.0, 0.0, 0.0, 0.234, 0.0, 0.0, 0.5297, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	1e-05	300	0.3629	0.3578	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2354, 0.0, 0.0, 0.5299, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	3e-05	100	0.3681	0.3619	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2883, 0.0, 0.0, 0.536, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	3e-05	200	0.3673	0.3614	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2869, 0.0, 0.0, 0.5352, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	3e-05	300	0.3672	0.3619	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2885, 0.0, 0.0, 0.5349, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.0001	100	0.3754	0.3689	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3411, 0.0, 0.0, 0.5469, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.0001	200	0.3751	0.3689	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3415, 0.0, 0.0, 0.5464, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.0001	300	0.375	0.3689	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3429, 0.0, 0.0, 0.5462, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.0003	100	0.3807	0.3725	[0.003, 0.0443, 0.0, 0.0, 0.0, 0.3647, 0.0, 0.0, 0.5543, 0.0002, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0,
0.0001	0.0003	200	0.3807	0.3723	[0.003, 0.0425, 0.0, 0.0, 0.0, 0.3643, 0.0, 0.0019, 0.5544, 0.0002, 0.0, 0.0, 0.0019
0.0001	0.0003	300	0.3814	0.3727	[0.0046, 0.0429, 0.0, 0.0021, 0.0, 0.3645, 0.0, 0.0, 0.5552, 0.0, 0.0, 0.0,
0.0001	0.001	100	0.4337	0.3871	[0.2803, 0.4223, 0.0239, 0.155, 0.4085, 0.5071, 0.0965, 0.2715, 0.5744,
0.0001	0.001	200	0.4333	0.3872	[0.2846, 0.4254, 0.0211, 0.1468, 0.4173, 0.5067, 0.0957, 0.2685, 0.5736]
0.0001	0.001	300	0.4333	0.3874	[0.2755, 0.4291, 0.0213, 0.1576, 0.4033, 0.5077, 0.0962, 0.2757, 0.5736]
1e-05	1e-05	100	0.362	0.3565	[0.0,0.0,0.0,0.0,0.0,0.234,0.0,0.0,0.529,0.0,0.0,0.0,0.0,0.0]
1e-05	1e-05	200	0.3627	0.3574	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2357, 0.0, 0.0, 0.5297, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	1e-05	300	0.3625	0.3571	[0.0,0.0,0.0,0.0,0.0,0.234,0.0,0.0,0.5295,0.0,0.0,0.0,0.0,0.0]
1e-05	3e-05	100	0.367	0.3615	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2882, 0.0, 0.0, 0.5348, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	3e-05	200	0.3676	0.3615	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2876, 0.0, 0.0, 0.5355, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	3e-05	300	0.3674	0.362	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2864, 0.0, 0.0, 0.5353, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0001	100	0.3756	0.3691	[0.0, 0.0, 0.0, 0.0, 0.0, 0.341, 0.0, 0.0, 0.547, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0001	200	0.375	0.3694	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3411, 0.0, 0.0, 0.5463, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0001	300	0.3756	0.3689	[0.0,0.0,0.0,0.0,0.0,0.3406,0.0,0.0,0.5471,0.0,0.0,0.0,0.0,0.0]
1e-05	0.0003	100	0.3813	0.3722	[0.003, 0.0401, 0.0, 0.0, 0.0, 0.3656, 0.0005, 0.001, 0.555, 0.0,
1e-05	0.0003	200	0.3809	0.3727	[0.0, 0.0397, 0.0, 0.0, 0.0, 0.3654, 0.0005, 0.0, 0.5545, 0.0002, 0.0,
1e-05	0.0003	300	0.3805	0.3723	[0.0061, 0.0424, 0.0, 0.0, 0.0, 0.3651, 0.0, 0.002, 0.554, 0.0, 0.
1e-05	0.001	100	0.4333	0.3872	[0.2785, 0.4203, 0.0179, 0.1541, 0.4154, 0.5066, 0.0995, 0.2752, 0.5737, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.0000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.00000, 0.000000, 0.000000, 0.000000, 0.000000, 0.000000, 0.000000, 0.0000000, 0.00000000, 0.0000000000
1e-05	0.001	200	0.4338	0.3867	[0.2788, 0.4201, 0.0182, 0.1445, 0.4086, 0.5074, 0.0979, 0.2755, 0.5744]
1e-05	0.001	300	0.433	0.3885	[0.2855, 0.4202, 0.0213, 0.1396, 0.4081, 0.5082, 0.0929, 0.2673, 0.5737]

tol	С	$\max_{}$ iter	training f1	valid f1	training f1 for each technique
0.001	0.001	200	0.4333	0.3887	[0.2803, 0.4228, 0.0183, 0.1491, 0.4153, 0.5063, 0.0963, 0.2682, 0.5739, 0.0963, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964, 0.0964,