						Classificat	ion of Rainfall day	3				
						Classificat	ion or realman day	•				
	Classifier: SVM	With no Oversan	molina									
	Oldosilier. O vivi,	William To Oversun	iipiiiig									
Overall Summan	y (we are mostly i	nterested in class	1 and class 3)									
Overall Callinary	y (we are mosay i	nerested in class	Tana ciass o)									
No History												
140 Tilotory												
Data-set: lead 1	Precision	Recall	F1-score	Support samples								
Class 1	0.2	0.22										
Class 2	0.66	0.44	0.52									
Class 3	0.15	0.35		245								
Overall	0.34	0.33	0.31									
Balanced accura		Accuracy: 37.86		Cor. Pred: 619								
]											
Data-set: lead 3	Precision	Recall	F1-score	Support samples								
Class 1	0.22	0.24										
Class 2	0.64	0.42										
Class 3	0.16	0.38										
Overall	0.34	0.35										
Balanced accura		Accuracy: 38.0	1.02	Cor. Pred: 619								
	I											
Data-set: lead 5	Precision	Recall	F1-score	Support samples								
Class 1	0.2	0.42										
Class 2	0.64	0.28										
Class 3	0.17	0.33										
Overall	0.34	0.34										
Balanced accura		Accuracy: 31.62		Cor. Pred: 517								
Dalariood doodra	1	7.00d/doj. 01.02		001111001011								
Data-set: lead 10	Precision	Recall	F1-score	Support samples								
Class 1	0.43	0.69										
Class 2	0.74	0.2		1062								
Class 3	0.23	0.76										
Overall	0.47	0.55										
Balanced accura		Accuracy: 38.10		Cor. Pred: 623								
Lead 10 data set	shows best perfo	rmance with 69%	and 76% accura	cy in class 1 and 3								
				.,								
With Three Days	History											
Data-set: lead 1	Precision	Recall	F1-score	Support samples								
Class 1	0.2	0.31	0.24									
Class 2	0.67	0.35										
Class 3	0.13	0.31	0.19									
Overall	0.33	0.32										
Balanced accura		Accuracy: 33.70		Cor. Pred: 551								
		,		1								
Data-set: lead 3	Precision	Recall	F1-score	Support samples								
Class 1	0.22	0.28										
Class 2	0.66	0.4	0.5									
Class 3	0.16	0.37	0.22									
Overall	0.10	0.35										
Balanced accura		Accuracy: 36.94	0.02	Cor. Pred: 604								
	,	500.00y. 00.04		20004	 							
Data-set: lead 5	Precision	Recall	F1-score	Support samples	 							
Class 1	0.19	0.33										
Class 1	0.19	0.33										
U1035 Z	0.62	0.31	0.41	1002								

	1								
Class 3	0.17	0.36	0.23	245					
Overall	0.32	0.33	0.29	1635					
Balanced accura		Accuracy: 31.93	0.20	Cor. Pred: 522					
balanceu accura	acy. 33.29	Accuracy, 51.95		Cor. Pred. 522					
Data-set: lead 1	Precision	Recall	F1-score	Support samples					
Class 1	0.46	0.66	0.55	328					
				-					
Class 2	0.73		0.34						
Class 3	0.22	0.77	0.35	245					
Overall	0.47	0.55	0.41	1635					
Balanced accura		Accuracy: 39.27		Cor. Pred: 642					
Dalarioca accare	1	/ toodrady. 00.27		001.11Cd. 042					
Lead 10 data se	et with 3 days histo	ry shows best per	formance with 66	% and 77% accu.					
	Classifier: SVM,	With Oversampli	ng: Adasyn meth	od()					
Overall Summar	ry (we are mostly i	nterested in class	1 and class 3)						
	,		,						
No History									
Data-set: lead 1	Precision	Recall	F1-score	Support samples					
Class 1	0.21	0.34	0.26						
Class 2	0.66	0.31	0.42	1062					
Class 3	0.14	0.34	0.2	245					
Overall	0.34		0.29						
Balanced accura	acy: 33.17	Accuracy: 32.17	•	Cor. Pred: 526					
Data-set: lead 3	Precision	Recall	F1-score	Support samples					
Class 1	0.24		0.3						
Class 2	0.67	0.32	0.43						
Class 3	0.16	0.37	0.22	245					
Overall	0.35	0.36	0.32	1635					
Balanced accura	acv: 36.40	Accuracy: 34.37		Cor. Pred: 562					
Dalarioca accure	1	71000100y. 04.07		001.11Cd. 002					
Data-set: lead 5	Precision	Recall	F1-score	Support samples					
Class 1	0.2	0.36	0.26	328					
Class 2	0.63	0.25	0.36	1062					
Class 3	0.16		0.23						
Overall	0.33		0.28						
Balanced accura	acy: 34.01	Accuracy: 29.79		Cor. Pred: 487					
		1							
Data actulosel 4	C Propinier	Popul	E1 coors	Cupport complet					
Data-set: lead 1		Recall	F1-score	Support samples					
Class 1	0.39		0.5						
Class 2	0.71	0.2	0.31	1062					
Class 3	0.23		0.34						
Overall	0.44		0.38						
			0.38						
Balanced accura	acy: 53.13	Accuracy: 37.37		Cor. Pred: 611					
Lead 10 data se	t shows best perfo	ormance with 70%	and 69% accura-	cv in class 1 and 3					
	Door point	222 11 7 3 70		.,					
With Three days	History								
Data actulated	Draginis :	Decell	Г1	Cumpart					
Data-set: lead 1		Recall	F1-score	Support samples					
Class 1	0.21	0.35	0.27						
Class 2	0.67	0.29	0.41	1062					
Class 3	0.15		0.22						
	+								
Overall	0.35	0.35	0.3	1635					

	acy: 34.75	Accuracy: 31.99		Cor. Pred: 523						
	1	,								
Data-set: lead 3	Procision	Recall	F1-score	Support samples						
Class 1	0.22	0.32	0.26							
Class 2	0.65	0.34	0.44							
Class 3	0.16	0.4	0.23	245						
Overall	0.34	0.35	0.31	1635						
Balanced accura	acv: 34.94	Accuracy: 34.07		Cor. Pred: 557						
	1	1								
Data anti land F	Description	Desell	E4	0						
Data-set: lead 5			F1-score	Support samples						
Class 1	0.24	0.35	0.29							
Class 2	0.65	0.32	0.43	1062						
Class 3	0.16	0.4	0.22	245						
Overall	0.35	0.36	0.31	1635						
Balanced accura		Accuracy: 34.07		Cor. Pred: 557						
Salariceu accura	acy. 33.69	Accuracy, 54.07		Col. Fled. 557						
Data-set: lead 1	Precision	Recall	F1-score	Support samples						
class 1	0.4	0.7	0.51	328						
lass 2	0.74	0.24	0.37	1062						
Class 3	0.23	0.66	0.34							
	0.23	0.53	0.34							
Overall			0.4							
Balanced accura	acy: 53.41	Accuracy: 39.69		Cor. Pred: 649						
ead 10 data se	t with 3 months his	tory shows best p	erformance with	70% and 66% acc						
	Classifier: Rando	m Forest, With C	Oversampling: Ac	lasyn method()						
Overall Summar	ry (we are mostly in	nterested in class	1 and class 3)							
Overall Summar	ry (we are mostly in	nterested in class	1 and class 3)							
Overall Summa	ry (we are mostly in	nterested in class	1 and class 3)							
	y (we are mostly in	nterested in class	1 and class 3)							
	ry (we are mostly in	nterested in class	1 and class 3)							
No History										
No History			1 and class 3) F1-score	Support samples						
No History Data-set: lead 1										
No History Data-set: lead 1 Class 1	Precision 0.22	Recall 0.39	F1-score 0.28	328						
No History Data-set: lead 1 Class 1 Class 2	Precision 0.22 0.67	Recall 0.39 0.28	F1-score 0.28	328 1062						
No History Data-set: lead 1 Class 1 Class 2 Class 3	Precision 0.22 0.67 0.13	Recall 0.39 0.28 0.31	F1-score 0.28 0.4 0.18	328 1062 245						
Data-set: lead 1 Class 1 Class 2 Class 3	Precision 0.22 0.67 0.13 0.34	Recall 0.39 0.28 0.31 0.33	F1-score 0.28	328 1062 245 1635						
No History Data-set: lead 1 Class 1 Class 2 Class 3 Overall	Precision 0.22 0.67 0.13 0.34	Recall 0.39 0.28 0.31	F1-score 0.28 0.4 0.18	328 1062 245						
No History Data-set: lead 1 Class 1 Class 2 Class 3 Overall	Precision 0.22 0.67 0.13 0.34	Recall 0.39 0.28 0.31 0.33	F1-score 0.28 0.4 0.18	328 1062 245 1635						
Data-set: lead 1 Class 1 Class 2 Class 3 Overall Balanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89	F1-score 0.28 0.4 0.18	328 1062 245 1635 Cor. Pred: 505						
Data-set: lead 1 Class 1 Class 2 Class 3 Overall Balanced accurate	Precision 0.22 0.67 0.13 0.34 acy: 32.80	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall	F1-score 0.28 0.4 0.18 0.29	328 1062 245 1635 Cor. Pred: 505						
vata-set: lead 1 class 1 class 2 class 3 overall alanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29	328 1062 245 1635 Cor. Pred: 505 Support samples 328						
Data-set: lead 1 Class 1 Class 2 Class 3 Overall Balanced accura Data-set: lead 3 Class 1	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39 0.31	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062						
Data-set: lead 1 Class 1 Class 2 Class 3 Overall Data-set: lead 3 Class 1 Class 1 Class 2 Class 3 Class 3	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39 0.31 0.35	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245						
Oata-set: lead 1 Class 1 Class 2 Class 3 Overall Balanced accura Oata-set: lead 3 Class 1 Class 2 Class 3	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39 0.31	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245						
Data-set: lead 1 Class 1 Class 2 Class 3 Diverall Balanced accura Data-set: lead 3 Class 1 Class 2 Class 3 Diverall Class 2 Class 3 Diverall	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.31 0.35 0.35	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245						
Data-set: lead 1 Class 1 Class 2 Class 3 Diverall Balanced accura Data-set: lead 3 Class 1 Class 2 Class 3 Diverall Class 2 Class 3 Diverall	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39 0.31 0.35	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635						
Data-set: lead 1 Class 1 Class 2 Class 3 Overall Balanced accura Data-set: lead 3 Class 1 Class 2 Class 3 Overall Balanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39 0.31 0.35 0.35 Accuracy: 32.91	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538						
Data-set: lead 1 Class 1 Class 2 Class 3 Overall Balanced accura Class 1 Class 2 Class 3 Overall Balanced accura Class 2 Class 3 Overall Balanced accura Class 3 Overall Balanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.39 0.31 0.35 0.35 Accuracy: 32.91 Recall Recall	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538						
pata-set: lead 1 class 2 class 3 class 3 class 1 class 1 class 3 class 1 class 2 class 3 class 1 class 2 class 3 class 2 class 3 coverall clanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.35 0.35 Accuracy: 32.91 Recall 0.31	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328						
Data-set: lead 1 Class 2 Class 3 Dverall Class 1 Class 2 Class 3 Dverall Class 1 Class 2 Class 3 Dverall Class 2 Class 3 Dverall Class 2 Class 3 Dverall Class 3	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.39 0.31 0.35 0.35 Accuracy: 32.91 Recall Recall	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062						
o History ata-set: lead 1 lass 1 lass 2 lass 3 Inverall alanced accura ata-set: lead 3 lass 1 lass 2 lass 3 Inverall alanced accura ata-set: lead 5 lass 1 lass 1 lass 2	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.35 0.35 Accuracy: 32.91 Recall 0.31	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062						
o History ata-set: lead 1 lass 1 lass 2 lass 3 verall alanced accura tass 2 lass 3 verall alanced accura ata-set: lead 5 lass 1 lass 2 lass 3 verall alanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062						
pata-set: lead 1 class 1 class 2 class 3 coverall class 1 class 3 coverall class 4 class 1 class 5 class 5 class 5 coverall class 6 class 1 class 6 class 6 class 8 coverall	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.31 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.35 0.35 Accuracy: 32.91	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.3 F1-score 0.24 0.3	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062 245 1635						
Data-set: lead 1 Class 1 Class 2 Class 3 Overall Class 1 Class 2 Class 3 Overall Class 2 Class 3 Class 1 Class 2 Class 3 Class 1 Class 2 Class 3 Class 1 Class 2 Class 3 Class 4 Class	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062						
pata-set: lead 1 class 1 class 2 class 3 coverall class 1 class 2 class 1 class 2 class 3 coverall class 2 class 3 coverall class 2 class 3 coverall class 4 class 3 coverall class 4 class 3 coverall class 4 class 3 coverall class 4 coverall class 4 coverall class 4 coverall class 5 coverall class 6 coverall class 7 coverall class 6 coverall class 6 coverall class 7 coverall class 7 coverall class 6 coverall class 7 coverall class 8 coverall class 8 coverall class 9 coverall class 9 coverall class 1 coverall class 1 coverall class 1 coverall class 1 coverall class 2 coverall class 3 coverall class 6 coverall class 6 coverall class 7 coverall class 7 coverall class 8 coverall class 9 coverall class 1 coverall class 2 coverall class 2 coverall class 3 coverall class 3 coverall class 3 coverall class 6 coverall class 1 coverall class 2 coverall class 2 coverall class 3 coverall class 3 coverall class 3 coverall class 6 coverall class 1 coverall class 1 coverall class 1 coverall class 2 coverall class 2 coverall class 3 coverall class 3 coverall class 2 coverall class 3 coverall class 1 coverall class 2 coverall class 2 coverall class 3 coverall class 1 coverall class 1 coverall class 2 coverall class 2 coverall class 2 coverall class 3 coverall class 2 coverall class 3 coverall class 3 coverall class 4 coverall class 6 coverall class 6 coverall class 1 coverall class 1 coverall class 1 coverall class 2 coverall class 2 coverall cla	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33 acy: 33.3	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39 0.31 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.28 0.41 0.33 Accuracy: 30.46	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score 0.24 0.25	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062 245 1635 Cor. Pred: 498						
Data-set: lead 1 Class 2 Class 3 Overall Class 1 Class 3 Overall Class 2 Class 3 Overall Class 2 Class 3 Overall Class 2 Class 3 Overall Class 3	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33 acy: 33.3	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.31 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.35 0.35 Accuracy: 32.91	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062 245 1635						
Data-set: lead 1 Class 2 Class 3 Overall Class 2 Class 3 Class 1 Class 2 Class 3 Class 1 Class 2 Class 3 Class 1 Class 1 Class 2 Class 3 Class 4 Class 5 Class 5 Class 5 Class 5 Class 6 Class 6 Class 7 Class 7 Class 7 Class 7 Class 8 Class	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33 acy: 33.3	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 Recall 0.39 0.31 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.28 0.41 0.33 Accuracy: 30.46	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score 0.24 0.25	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062 245 1635 Cor. Pred: 498 1635 Cor. Pred: 498 Support samples						
Data-set: lead 1 Class 2 Class 3 Doverall Balanced accura Data-set: lead 3 Class 2 Class 3 Doverall Balanced accura Data-set: lead 5 Class 2 Class 3 Doverall Balanced accura Data-set: lead 5 Class 1 Class 2 Class 3 Doverall Balanced accura Data-set: lead 5 Class 1 Class 3 Doverall Balanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33 acy: 33.3 Q Precision 0.39	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.31 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.28 0.41 0.33 Accuracy: 30.46 Recall Recall 0.72	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score 0.24 F1-score 0.25 F1-score 0.26 0.30 0.20	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062 245 1635 Cor. Pred: 498 Cor. Pred: 498 Support samples						
Data-set: lead 1 Class 2 Class 3 Overall Balanced accura Class 1 Class 2 Class 3 Overall Balanced accura Class 2 Class 3 Overall Balanced accura Data-set: lead 5 Class 1 Class 1 Class 3 Overall Balanced accura Data-set: lead 5 Class 3 Overall Balanced accura Class 3	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33 acy: 33.3 C Precision 0.39 0.72	Recall 0.39 0.28 0.31 0.33 Accuracy: 32.91 Recall 0.31 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.35 0.28 0.41 0.33 Accuracy: 30.46 Recall 0.72 0.72 0.72	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score 0.24 0.35 0.23 0.28	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062 245 1635 Cor. Pred: 498 Cor. Pred: 498 Support samples						
Overall Summar No History Data-set: lead 1 Class 1 Class 2 Class 3 Overall Balanced accura Data-set: lead 3 Class 2 Class 3 Overall Balanced accura Data-set: lead 5 Class 1 Class 2 Class 3 Overall Balanced accura Data-set: lead 5 Class 1 Class 2 Class 3 Overall Class 1 Class 2 Class 3 Overall Balanced accura	Precision 0.22 0.67 0.13 0.34 acy: 32.80 Precision 0.23 0.65 0.15 0.34 acy: 34.7 Precision 0.19 0.64 0.16 0.33 acy: 33.3 Q Precision 0.39	Recall 0.39 0.28 0.31 0.33 Accuracy: 30.89 0.31 0.35 0.35 Accuracy: 32.91 Recall 0.31 0.28 0.41 0.33 Accuracy: 30.46 Recall Recall 0.72	F1-score 0.28 0.4 0.18 0.29 F1-score 0.29 0.42 0.21 0.3 F1-score 0.24 F1-score 0.25 F1-score 0.26 0.30 0.20	328 1062 245 1635 Cor. Pred: 505 Support samples 328 1062 245 1635 Cor. Pred: 538 Support samples 328 1062 245 1635 Cor. Pred: 498 Support samples 328 1062 245 1635 Cor. Pred: 498						

Balanced accurac	cy: 53.08	Accuracy: 37.55		Cor. Pred: 614
Lead 10 data set	shows best perfo	rmance with 72%	and 67% accurac	cy in class 1 and 3
With Three Days	History			
Data-set: lead 1				Support samples
Class 1	0.21			
Class 2	0.67	0.3		
Class 3	0.15			
Overall	0.34			
Balanced accurac	cy: 34.46	Accuracy: 32.17		Cor. Pred: 526
Data-set: lead 3	Precision	Recall	F1-score	Support samples
Class 1	0.22	0.36	0.27	
Class 2	0.68	0.32	0.44	1062
Class 3	0.14	0.34	0.2	245
Overall	0.35	0.34	0.3	1635
Balanced accurac	cy: 34.32	Accuracy: 33.46		Cor. Pred: 547
Data-set: lead 5			F1-score	Support samples
Class 1	0.22			
Class 2	0.65	0.35	0.45	
Class 3	0.15			
Overall	0.34	0.34	0.31	1635
Balanced accurac	cy: 34.46	Accuracy: 34.56		Cor. Pred: 565
Data-set: lead 10			F1-score	Support samples
Class 1	0.39	0.71	0.51	328
Class 2	0.74	0.26	0.39	1062
Class 3	0.22	0.6	0.32	245
Overall	0.45	0.53	0.41	1635
Balanced accurac	cy: 52.57	Accuracy: 40.43		Cor. Pred: 661
Lead 10 data set	with 3 days histo	ry shows best per	formance with 71	% and 60% accu.