Module 3 Sprint 1 : Retention, Cohorts & Churn

Date of analysis 2021-02-07

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Dataset: turing_data_analytics.subscriptions

Select all	2020-11-02	2020-11-16	2020-11-30	2020-12-14	2020-12-28	2021-01-11	2021-01-25
2020-10-26	2020-11-09	2020-11-23	2020-12-07	2020-12-21	2021-01-04	2021-01-18	

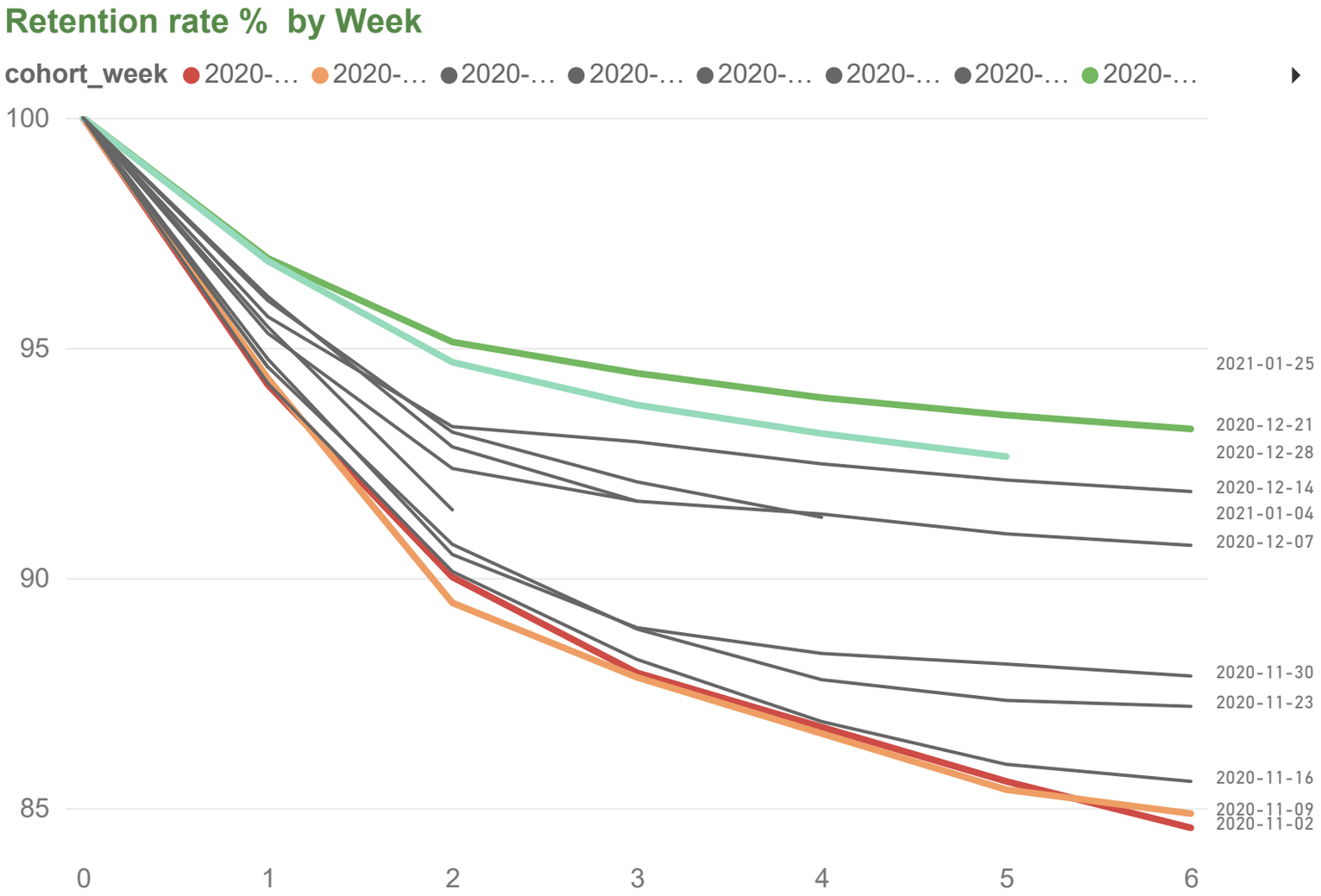
Retention rate %

Year	0	1	2	3	4	5	6
2020 November 2	100,00	94,20	90,02	87,94	86,76	85,58	84,57
9	100,00	94,34	89,46	87,84	86,62	85,40	84,88
16	100,00	94,23	90,14	88,23	86,88	85,95	85,58
23	100,00	94,59	90,73	88,89	87,79	87,34	87,21
30	100,00	94,76	90,51	88,92	88,36	88,13	87,87
December 7	100,00	95,32	92,38	91,67	91,39	90,96	90,71
14	100,00	95,68	93,29	92,96	92,48	92,13	91,88
21	100,00	96,95	95,13	94,45	93,92	93,54	93,24
28	100,00	96,89	94,69	93,76	93,14	92,64	
2021 January 4	100,00	96,03	93,17	92,09	91,32		
11	100,00	96,12	92,85	91,67			
18	100,00	95,46	91,48				
25	100,00	94,58					

Retained cohort size (subscriptions)

Year	0	1	2	3	4	5	6
2020 November 2	19382	18257	17447	17045	16816	16587	16392
9	16248	15328	14535	14272	14074	13876	13791
16	18323	17265	16517	16166	15919	15748	15680
23	20361	19260	18473	18099	17875	17783	17756
30	22340	21170	20221	19864	19739	19689	19630
December 7	29050	27691	26835	26631	26550	26424	26352
14	25211	24122	23519	23437	23315	23227	23165
21	17843	17298	16974	16853	16759	16690	16637
28	17097	16565	16189	16030	15924	15839	
2021 January 4	23425	22496	21824	21572	21391		
11	21777	20931	20220	19963			
18	21021	20066	19230				
25	19919	18840					

Retention rate % by Week



The only one days worth dataset part starting at 2020 11 01 was considered as outlier, as the cohorts were formed with the weeks starting on Monday.

The best cohorts in terms of retention rate does not give the same picture in terms of cohort size by subscriptions count.

The highest retention rates has cohorts of 2020-12-21 and 2020-12-28

The lowest retention rates has cohorts 2020-11-02 and 2020-11-09

The biggest subscriptions number has cohorts of 2020-12-07 and 2020-12-14

The smallest subscription numbers has cohorts 2020-11-09 , 2020-12-21 and 2020-12-28

December 2020 has 4 weeks. The best retention rate dynamics is for the two last cohort weeks. When we look through the lens oh cohort size in subscriptions better weeks are the first two - the result is totally opposite. We can see this in the charts below.

Further cohort analysis through the lens of revenue is needed.

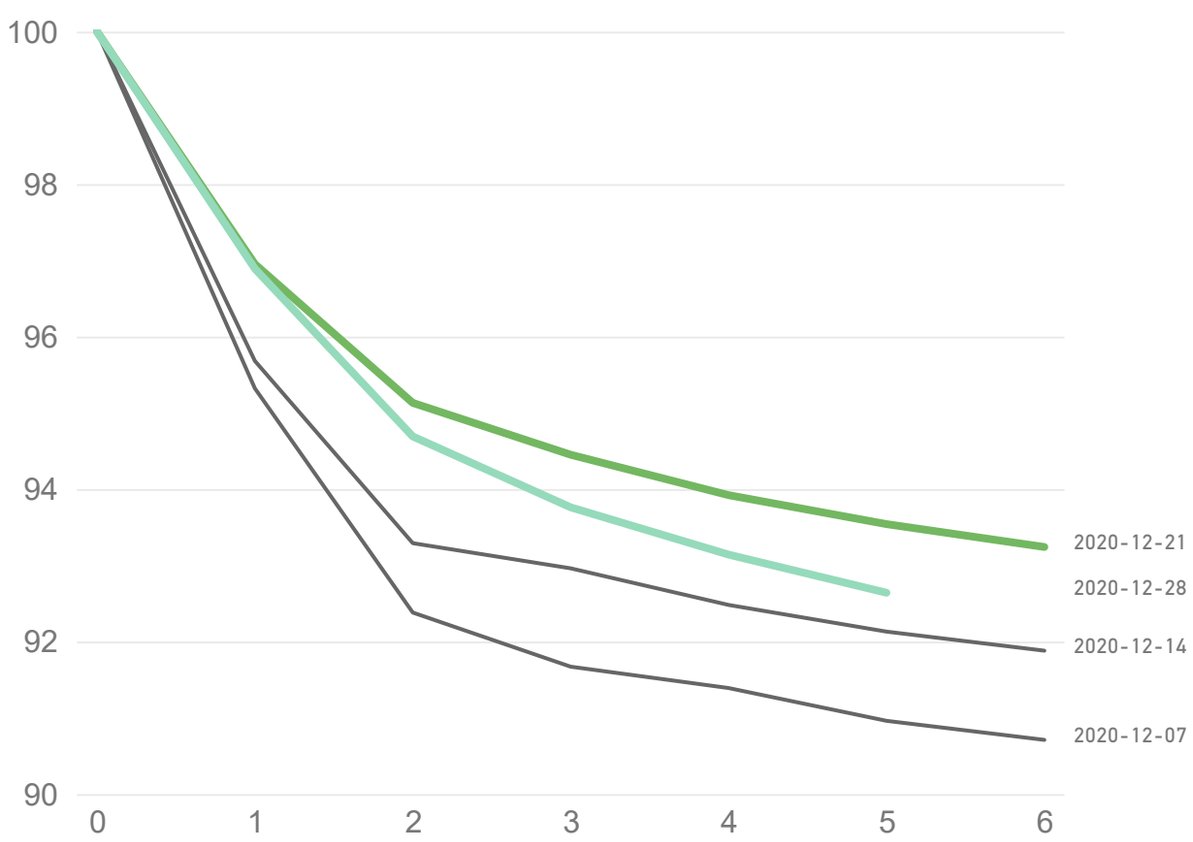
Retention rate %

Year	0	1	2	3	4	5	6
2020 December 7	100,00	95,32	92,38	91,67	91,39	90,96	90,71
14	100,00	95,68	93,29	92,96	92,48	92,13	91,88
21	100,00	96,95	95,13	94,45	93,92	93,54	93,24
28	100,00	96,89	94,69	93,76	93,14	92,64	

Retained cohort size (subscriptions)

Year	0	1	2	3	4	5	6
2020 December 7	29050	27691	26835	26631	26550	26424	26352
14	25211	24122	23519	23437	23315	23227	23165
21	17843	17298	16974	16853	16759	16690	16637
28	17097	16565	16189	16030	15924	15839	

Retention rate % by Week



Retained cohort size (subscriptions)