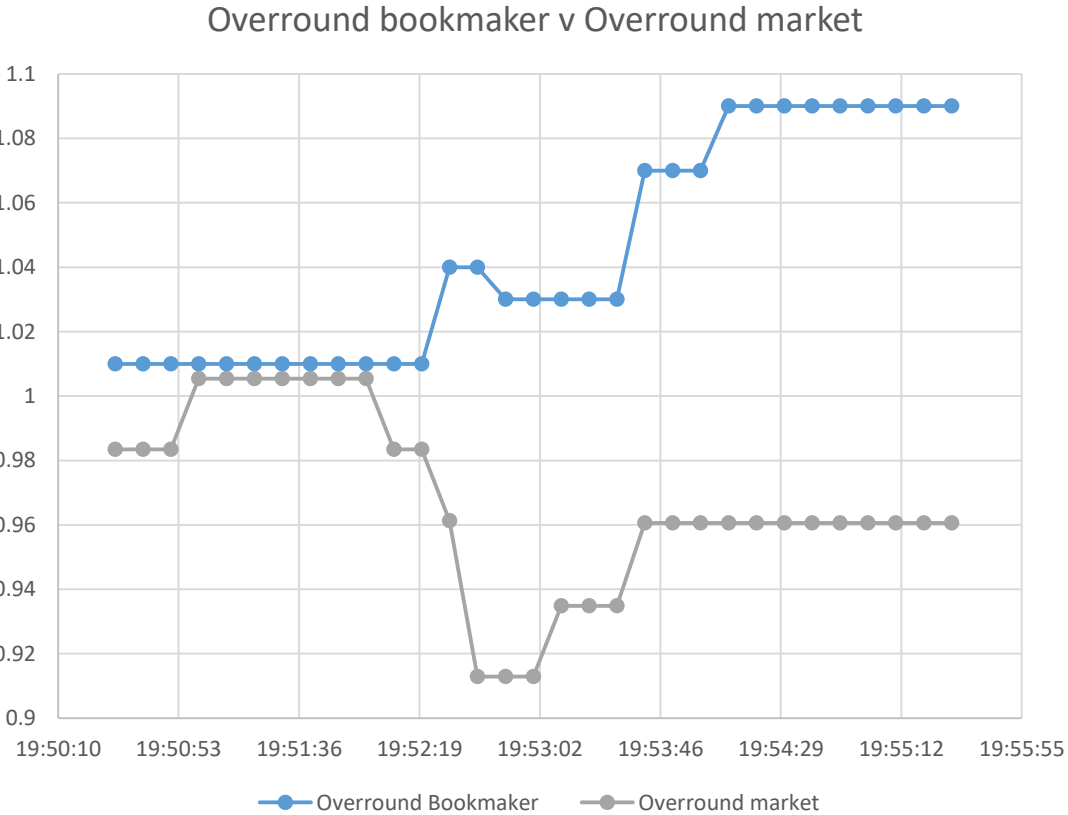# Graph 2

- Over round of a bookmaker compared to the market.

Market overround compared to the bookmaker overround is another important table. For instance if we were looking at bookmaker 3, from event 15 we would have raw data shown below (again data is fictional)

idevent	idsource	market	idbookmaker	bet	Timestamp	delta	odds
15	1	Winner	3	Alaadel	07:06:43	22	0.363636
15	1	Winner	3	Alaadel	07:51:32	31	0.307692
15	1	Winner	3	Alaadel	10:25:53	8	0.333333
15	1	Winner	3	Alaadel	19:46:51	28	0.285714
15	1	Winner	3	Alaadel	19:56:31	7	0.266666
15	1	Winner	3	Alaadel	19:58:23	7	0.307692
15	1	Winner	3	Alaadel	19:58:53	19	0.333334
15	1	Winner	3	Cappananty Con	06:55:26	0	0.25
15	1	Winner	3	Cappananty Con	07:48:17	6	0.285714
15	1	Winner	3	Cappananty Con	19:23:30	21	0.333333
15	1	Winner	3	Cappananty Con	19:48:19	8	0.363636
15	1	Winner	3	Cappananty Con	19:55:29	11	0.363636
15	1	Winner	3	Cappananty Con	19:58:17	6	0.333333
15	1	Winner	3	Cappananty Con	19:58:54	19	0.285714
15	1	Winner	3	Maakaasib	06:55:26	0	0.333333
15	1	Winner	3	Maakaasib	07:26:40	20	0.363636
15	1	Winner	3	Maakaasib	10:05:05	17	0.363636
15	1	Winner	3	Maakaasib	10:53:37	19	0.333333
15	1	Winner	3	Maakaasib	12:09:38	32	0.307692
15	1	Winner	3	Maakaasib	18:30:02	51	0.285714
15	1	Winner	3	Maakaasib	18:37:59	34	0.235294
15	1	Winner	3	Maakaasib	19:16:41	35	0.307692
15	1	Winner	3	Maakaasib	19:33:14	24	0.266666
15	1	Winner	3	Maakaasib	19:46:22	44	0.333334
15	1	Winner	3	Maakaasib	19:53:40	7	0.363636
15	1	Winner	3	Maakaasib	19:58:22	7	0.4
15	1	Winner	3	Maakaasib	19:58:53	19	0.444444

This then should be converted into this table which again takes 10 second intervals and compares the most recent price information from that bookmaker on all horses, displays it as a bookmaker and then produces the graph shown on the right which comapres the market overround from graph 1 to the this bookmaker. It requested that we are able to plot multiples bookmakers on the same graph. (up to 5)
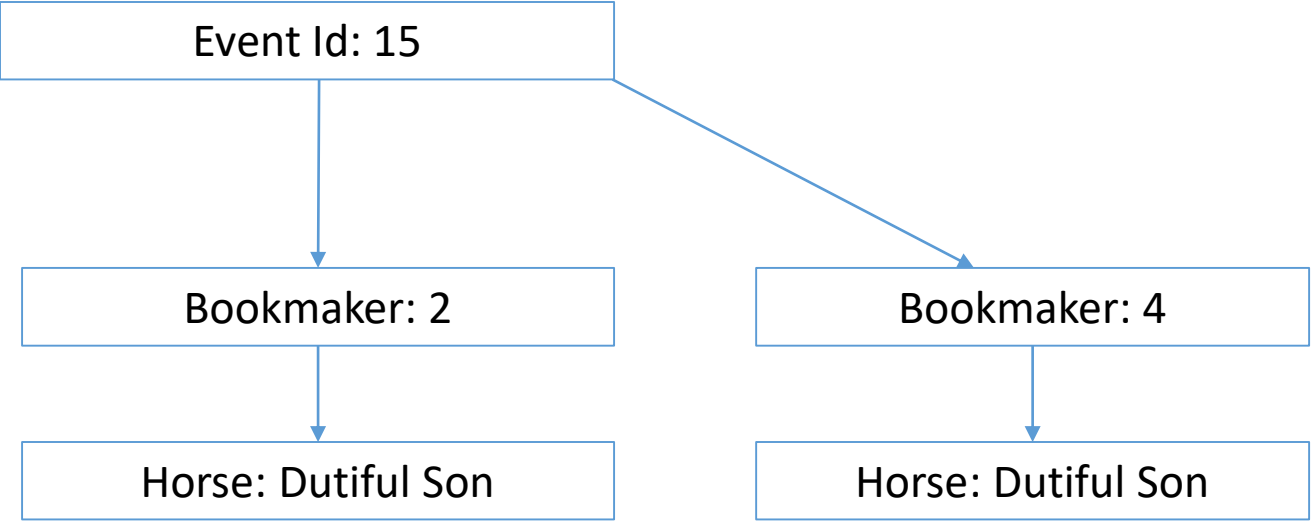
Time	Maakaasib	Alladell	Cappananty Con	Overround Bookmaker	Overround market from graph 1
19:50:30	0.4	0.31	0.3	1.01	0.983428
19:50:40	0.4	0.31	0.3	1.01	0.983428
19:50:50	0.4	0.31	0.3	1.01	0.983428
19:51:00	0.4	0.31	0.3	1.01	1.005405
19:51:10	0.4	0.31	0.3	1.01	1.005405
19:51:20	0.4	0.31	0.3	1.01	1.005405
19:51:30	0.4	0.31	0.3	1.01	1.005405
19:51:40	0.4	0.31	0.3	1.01	1.005405
19:51:50	0.4	0.31	0.3	1.01	1.005405
19:52:00	0.4	0.31	0.3	1.01	1.005405
19:52:10	0.4	0.31	0.3	1.01	0.983428
19:52:20	0.4	0.31	0.3	1.01	0.983428
19:52:30	0.4	0.31	0.33	1.04	0.961278
19:52:40	0.4	0.31	0.33	1.04	0.912914
19:52:50	0.4	0.3	0.33	1.03	0.912914
19:53:00	0.4	0.3	0.33	1.03	0.912914
19:53:10	0.4	0.3	0.33	1.03	0.934892
19:53:20	0.4	0.3	0.33	1.03	0.934892
19:53:30	0.4	0.3	0.33	1.03	0.934892
19:53:40	0.44	0.3	0.33	1.07	0.960533
19:53:50	0.44	0.3	0.33	1.07	0.960533
19:54:00	0.44	0.3	0.33	1.07	0.960533
19:54:10	0.44	0.3	0.35	1.09	0.960533
19:54:20	0.44	0.3	0.35	1.09	0.960533
19:54:30	0.44	0.3	0.35	1.09	0.960533
19:54:40	0.44	0.3	0.35	1.09	0.960533
19:54:50	0.44	0.3	0.35	1.09	0.960533
19:55:00	0.44	0.3	0.35	1.09	0.960533
19:55:10	0.44	0.3	0.35	1.09	0.960533
19:55:20	0.44	0.3	0.35	1.09	0.960533
19:55:30	0.44	0.3	0.35	1.09	0.960533

Overround bookmaker v Overround market

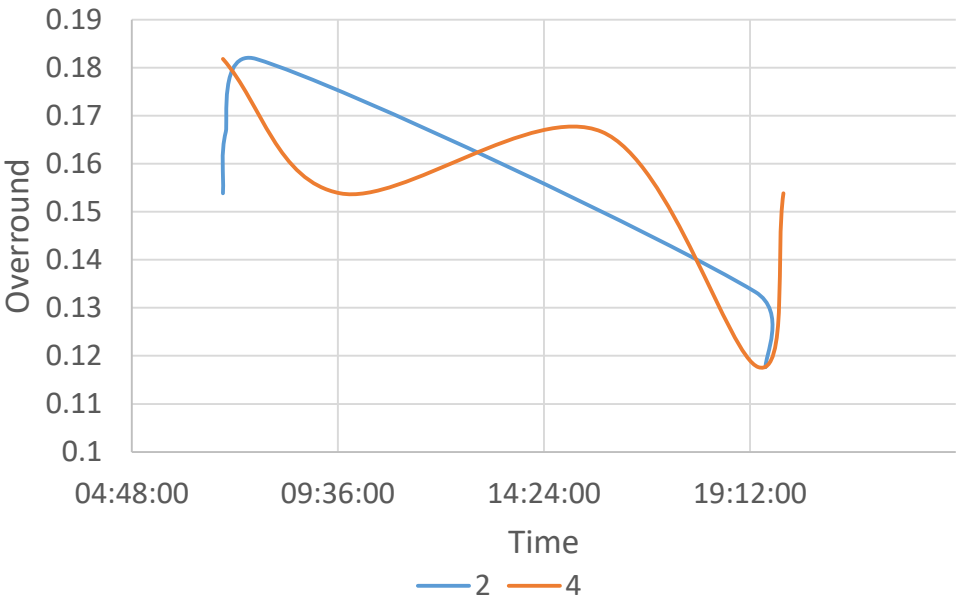Overround Bookmaker ——— Overround market

Graph 3

- The price of any horse plotted against time for bookmakers chosen.

I imagine this to be constructed using a number of drop down menus like this, each one going to get a data set of odds against time which can be plotted. Then plot them against each other.
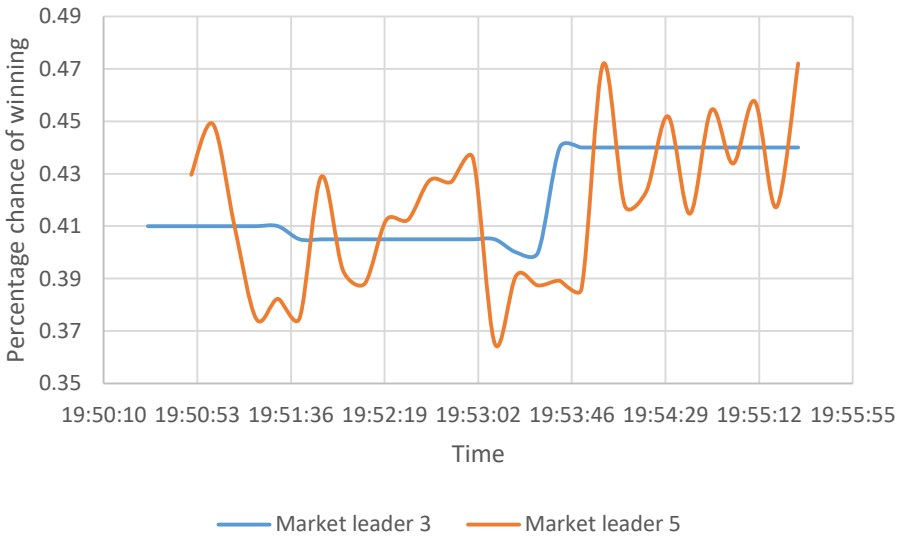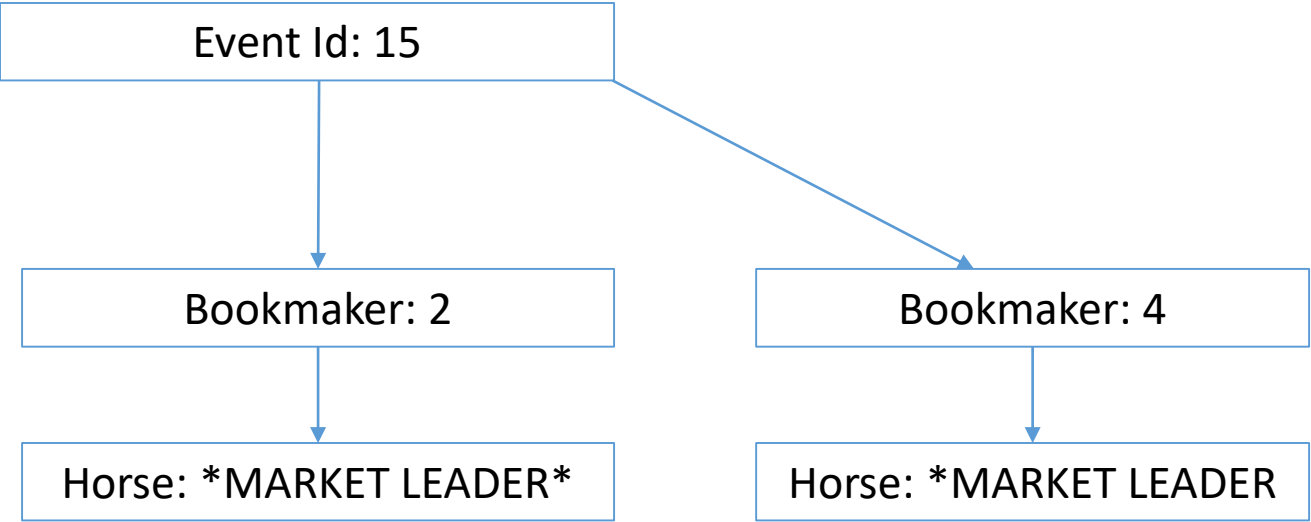
Event Id: 15

Bookmaker: 2

Bookmaker: 4

Horse: Dutiful Son

Horse: Dutiful Son

Dutiful Son price comparrison

2	Dutiful Son	06:55:24	0	0.153846
2	Dutiful Son	06:59:26	16	0.166667
2	Dutiful Son	07:41:47	20	0.181818
2	Dutiful Son	19:19:18	20	0.133333
2	Dutiful Son	19:34:02	15	0.117647

4	Dutiful Son	06:55:24	0	0.181818
4	Dutiful Son	09:39:10	7	0.153846
4	Dutiful Son	15:44:42	89	0.166667
4	Dutiful Son	19:23:52	19	0.117647
4	Dutiful Son	19:58:55	19	0.153846

As some additional functionality. Can the drop down menu include the option to display the market leader. (for table to drive this see next slide

Event Id: 15

Bookmaker: 2

Bookmaker: 4

Horse: *MARKET LEADER*

Horse: *MARKET LEADER

	Dutiful			
2	Son	06:55:24	0	0.153846
2	Dutiful Son	06:59:26	16	0.166667
2	Dutiful Son	07:41:47	20	0.181818
2	Dutiful Son	19:19:18	20	0.133333
2	Dutiful Son	19:34:02	15	0.117647

	Dutiful			
4	Son	06:55:24	0	0.181818
4	Dutiful Son	09:39:10	7	0.153846
4	Dutiful Son	15:44:42	89	0.166667
4	Dutiful Son	19:23:52	19	0.117647
4	Dutiful Son	19:58:55	19	0.153846

Time	Maakaasib	Alladell	Cappananty Con	Maximum value		Overround market
19:50:30	0.4	0.31	0.41	0.41		0.983428
19:50:40	0.4	0.31	0.41	0.41		0.983428
19:50:50	0.4	0.31	0.41	0.41		0.983428
19:51:00	0.4	0.31	0.41	0.41		1.005405
19:51:10	0.4	0.31	0.41	0.41		1.005405
19:51:20	0.4	0.31	0.41	0.41		1.005405
19:51:30	0.4	0.31	0.41	0.41		1.005405
19:51:40	0.4	0.31	0.405	0.405		1.005405
19:51:50	0.4	0.31	0.405	0.405		1.005405
19:52:00	0.4	0.31	0.405	0.405		1.005405
19:52:10	0.4	0.31	0.405	0.405		0.983428
19:52:20	0.4	0.31	0.405	0.405		0.983428
19:52:30	0.4	0.31	0.405	0.405		0.961278
19:52:40	0.4	0.31	0.405	0.405		0.912914
19:52:50	0.4	0.3	0.405	0.405		0.912914
19:53:00	0.4	0.3	0.405	0.405		0.912914
19:53:10	0.4	0.3	0.405	0.405		0.934892
19:53:20	0.4	0.3	0.375	0.4		0.934892
19:53:30	0.4	0.3	0.375	0.4		0.934892
19:53:40	0.44	0.3	0.375	0.44		0.960533
19:53:50	0.44	0.3	0.375	0.44		0.960533
19:54:00	0.44	0.3	0.33	0.44		0.960533
19:54:10	0.44	0.3	0.35	0.44		0.960533
19:54:20	0.44	0.3	0.35	0.44		0.960533
19:54:30	0.44	0.3	0.35	0.44		0.960533
19:54:40	0.44	0.3	0.35	0.44		0.960533
19:54:50	0.44	0.3	0.35	0.44		0.960533
19:55:00	0.44	0.3	0.35	0.44		0.960533
19:55:10	0.44	0.3	0.35	0.44		0.960533
19:55:20	0.44	0.3	0.35	0.44		0.960533
19:55:30	0.44	0.3	0.35	0.44		0.960533

The values shown in the previous graph can be obtained by reviewing the maximum value of any row from the bookmaker overround comparison in graph 2. as shown here.

Please remember

- At the end we need the ability to export the graphs out of R into a pdf