No. of passengers=3000,

End_sim_time = 5000,

getSpottingsNowTime = 2000,

peakThres=5 (500 meters both sides)

PosConf calculated for each point at distance of= 100 meters

Starting time gap between trains=8.33 min (500 sec)

Halt_time_of_Train = 20 sec

Speed_of_The_Train = 14 m/sec (50.4 km/h)

0.0.1   With no of trains=1

	A	B	C	D	E
1	Distance	PosnConf		NumUserInput	isPeak	
15	23100		1	1117	true	Jogeshwari
16	23200		1	1117	true	
17	23300		1	1117	true	
18	23400		1	1117	true	
19	23500		1	1117	true	
20	23600		1	1117	true	
21	23700		1	1117	true	
22	23800		1	1117	true	
23	23900		1	1117	true	
24	24000		1	1117	true	
25	24100		1	1117	true	
26	24200		1	1117	true	
27	24300		1	1117	true	
28	24400		1	1117	true	
29	24500		1	1117	true	
42						
43						

Figure 1: Predicted positions of the trains

193	1267	1	Stopped_Western	Bandra	up
217	1404	1	Stopped_Western	Khar Road	up
233	1518	1	Stopped_Western	Santacruz	up
251	1685	1	Stopped_Western	Vile Parle	up
265	1859	1	Stopped_Western	Andheri	up
277	2000	1	Stopped_Western	Jogeshwari	up
295	2261	1	Stopped_Western	Goregaon	up
313	2454	1	Stopped_Western	Malad	up
331	2610	1	Stopped_Western	Kandivali	up
355	2827	1	Stopped_Western	Borivali	up
373	3016	1	Stopped_Western	Dahisar	up
391	3280	1	Stopped_Western	Mira Road	up
415	3539	1	Stopped Western	Bhayandar	up

Figure 2: Real positions of the trains

0.0.2   With no of trains=2

1	Distance	PosnConf		NumUserInput	isPeak	
15	22900		1	1102	true	
16	23000		1	1102	true	Jogeshwari
17	23100		1	1102	true	
18	23200		1	1102	true	
19	23300		1	1102	true	
20	23400		1	1102	true	
21	23500		1	1102	true	
22	23600		1	1102	true	
23	23700		1	1102	true	
24	23800		1	1102	true	
25	23900		1	1102	true	
26	24000		1	1102	true	
27	24100		1	1102	true	
28	24200		1	1102	true	
29	24300		1	1102	true	
60	84200		1	258	true	Kelve road
61	84300		1	258	true	
62	84400		1	258	true	
63	84500		1	258	true	
82						

Figure 3: Predicted positions of the trains

1536	2	Stopped_Western	Palghar	down
1685	1	Stopped_Western	Vile Parle	up
1859	1	Stopped_Western	Andheri	up
2000	1	Stopped_Western	Jogeshwari	up
2154	2	Stopped_Western	Kelve Road	down
2261	1	Stopped_Western	Goregaon	up
2454	1	Stopped_Western	Malad	up
2589	2	Stopped_Western	Saphale	down

Figure 4: Real positions of the trains

0.0.3 With no of trains=3

	A	B	C	D	E
1	Distance	PosnConf		NumUserInput	isPeak	
21	17700	0.9999881548	28	true	Santacruz
22	17800	0.9999881548	28	true	
55	22900	1	1101	true	
56	23000	1	1101	true	Jogeshwari
57	23100	1	1101	true	
58	23200	1	1101	true	
59	23300	1	1101	true	
60	23400	1	1101	true	
61	23500	1	1101	true	
62	23600	1	1101	true	
63	23700	1	1101	true	
64	23800	1	1101	true	
65	23900	1	1101	true	
66	24000	1	1101	true	
67	24100	1	1101	true	
68	24200	1	1101	true	
69	24300	1	1101	true	
100	84200	1	257	true	Kelve road
101	84300	1	257	true	
102	84400	1	257	true	
103	84500	1	257	true	
122					

Figure 5: Predicted positions of the trains

1767	3	Stopped_Western	Bandra	up
1859	1	Stopped_Western	Andheri	up
1904	3	Stopped_Western	Khar Road	up
2000	1	Stopped_Western	Jogeshwari	up
2018	3	Stopped_Western	Santacruz	up
2154	2	Stopped_Western	Kelve Road	down
2185	3	Stopped_Western	Vile Parle	up
2261	1	Stopped_Western	Goregaon	up
2359	3	Stopped_Western	Andheri	up
2454	1	Stopped_Western	Malad	up
2500	3	Stopped_Western	Jogeshwari	up
2589	2	Stopped_Western	Saphale	down

Figure 6: Real positions of the trains

0.0.4 With no of trains=4

	A	B	C	D	E
1	Distance	PosnConf		NumUserInput	isPeak	
21	17700	0.9999993198	29	true	Santacruz
22	17800	0.9999993198	29	true	
55	22900	1	1101	true	
56	23000	1	1101	true	Jogeshwari
57	23100	1	1101	true	
58	23200	1	1101	true	
59	23300	1	1101	true	
60	23400	1	1101	true	
61	23500	1	1101	true	
62	23600	1	1101	true	
63	23700	1	1101	true	
64	23800	1	1101	true	
65	23900	1	1101	true	
66	24000	1	1101	true	
67	24100	1	1101	true	
68	24200	1	1101	true	
69	24300	1	1101	true	
100	84200	1	259	true	Kelve road
101	84300	1	259	true	
102	84400	1	259	true	
103	84500	1	259	true	
141	91000	0.8597639822	7	true	Palghar
142	91100	0.8597639822	7	true	
162					

Figure 7: Predicted positions of the trains

659	1685	1	Stopped_Western	Vile Parle	up
677	1767	3	Stopped_Western	Bandra	up
707	1859	1	Stopped_Western	Andheri	up
735	1904	3	Stopped_Western	Khar Road	up
765	2000	1	Stopped_Western	Jogeshwari	up
777	2018	3	Stopped_Western	Santacruz	up
785	2036	4	Stopped_Western	Palghar	down
815	2154	2	Stopped_Western	Kelve Road	down
833	2185	3	Stopped_Western	Vile Parle	up
847	2261	1	Stopped_Western	Goregaon	up
871	2359	3	Stopped_Western	Andheri	up
907	2454	1	Stopped_Western	Malad	up
935	2500	3	Stopped_Western	Jogeshwari	up
961	2589	2	Stopped_Western	Saphale	down

Figure 8: Real positions of the trains

0.0.5 With no of trains=5

	A	B	C	D	E
1	Distance	PosnConf	NumUserInput	isPeak	
21	11800	0.9999838321	17	true	Matunga road
22	11900	0.9999838321	17	true	
61	17700	0.9999951534	27	true	Santacruz
62	17800	0.9999951534	27	true	
95	22900	1	1102	true	
96	23000	1	1102	true	Jogeshwari
97	23100	1	1102	true	
98	23200	1	1102	true	
99	23300	1	1102	true	
100	23400	1	1102	true	
101	23500	1	1102	true	
102	23600	1	1102	true	
103	23700	1	1102	true	
104	23800	1	1102	true	
105	23900	1	1102	true	
106	24000	1	1102	true	
107	24100	1	1102	true	
108	24200	1	1102	true	
109	24300	1	1102	true	
140	84200	1	258	true	Kelve road
141	84300	1	258	true	
142	84400	1	258	true	
143	84500	1	258	true	
181	91000	0.8597639822	7	true	Palghar
182	91100	0.8597639822	7	true	
202					

Figure 9: Predicted positions of the trains

803	1767	3	Stopped_Western	Bandra	up
815	1781	5	Stopped_Western	Elphinstone Road	up
851	1859	1	Stopped_Western	Andheri	up
869	1886	5	Stopped_Western	Dadar	up
883	1904	3	Stopped_Western	Khar Road	up
927	2000	1	Stopped_Western	Jogeshwari	up
939	2018	3	Stopped_Western	Santacruz	up
943	2019	5	Stopped_Western	Matunga Road	up
951	2036	4	Stopped_Western	Palghar	down
979	2124	5	Stopped_Western	Mahim	up
1001	2154	2	Stopped_Western	Kelve Road	down
1019	2185	3	Stopped_Western	Vile Parle	up
1033	2261	1	Stopped_Western	Goregaon	up
1037	2267	5	Stopped_Western	Bandra	up
1073	2359	3	Stopped_Western	Andheri	up
1113	2404	5	Stopped_Western	Khar Road	up
1122	2454	1	Stopped_Western	Malad	up

Figure 10: Real positions of the trains

0.0.6 With no of trains=6

	A	B	C	D	E
1	Distance	PosnConf	NumUserInput	isPeak	
21	11800	0.9999688965	16	true	Matunga road
22	11900	0.9999688965	16	true	
61	17700	0.9999987627	27	true	Santacruz
62	17800	0.9999987627	27	true	
95	22900	1	1101	true	
96	23000	1	1101	true	Jogeshwari
97	23100	1	1101	true	
98	23200	1	1101	true	
99	23300	1	1101	true	
100	23400	1	1101	true	
101	23500	1	1101	true	
102	23600	1	1101	true	
103	23700	1	1101	true	
104	23800	1	1101	true	
105	23900	1	1101	true	
106	24000	1	1101	true	
107	24100	1	1101	true	
108	24200	1	1101	true	
109	24300	1	1101	true	
140	84200	1	259	true	Kelve Road
141	84300	1	259	true	
142	84400	1	259	true	
143	84500	1	259	true	
181	91000	0.8597639822	7	true	Palghar
182	91100	0.8597639822	7	true	
221	97700	0.255	2	true	Umroli
222	97800	0.255	2	true	
242					
243					

Figure 11: Predicted positions of the trains

863	1767	3	Stopped_Western	Bandra	up
875	1781	5	Stopped_Western	Elphinstone Road	up
923	1859	1	Stopped_Western	Andheri	up
941	1886	5	Stopped_Western	Dadar	up
955	1904	3	Stopped_Western	Khar Road	up
1005	2000	1	Stopped_Western	Jogeshwari	up
1017	2018	3	Stopped_Western	Santacruz	up
1021	2019	5	Stopped_Western	Matunga Road	up
1029	2036	4	Stopped_Western	Palghar	down
1043	2071	6	Stopped_Western	Umroli	down
1073	2124	5	Stopped_Western	Mahim	up
1097	2154	2	Stopped_Western	Kelve Road	down
1115	2185	3	Stopped_Western	Vile Parle	up
1129	2261	1	Stopped_Western	Goregaon	up
1137	2267	5	Stopped_Western	Bandra	up
1181	2359	3	Stopped_Western	Andheri	up
1227	2404	5	Stopped_Western	Khar Road	up
1237	2454	1	Stopped_Western	Malad	up

Figure 12: Real positions of the trains

0.0.7 With no of passengers= 100000 and no of trains=5

Sheet1

Distance	PosnConf	NumUserInput	isPeak	Stations
11500	1	703	true	
11600	1	703	true	
11700	1	703	true	
11800	1	703	true	Matunga road
11900	1	703	true	
12000	1	703	true	
12100	1	703	true	
12200	1	703	true	
17400	1	853	true	
17500	1	853	true	
17600	1	853	true	
17700	1	853	true	Santacruz
17800	1	853	true	
17900	1	853	true	
18000	1	853	true	
18100	1	853	true	
22900	1	38090	true	
23000	1	38090	true	Jogeshwari
23100	1	38090	true	
23200	1	38090	true	
23300	1	38090	true	
23400	1	38090	true	
23500	1	38090	true	
23600	1	38090	true	
23700	1	38090	true	
23800	1	38090	true	
23900	1	38090	true	
24000	1	38090	true	
24100	1	38090	true	
24200	1	38090	true	
24300	1	38090	true	
83600	1	8283	true	
84200	1	8283	true	Kelve road
84300	1	8283	true	
84400	1	8283	true	
84500	1	8283	true	
85100	1	8283	true	
90300	1	228	true	
90900	1	228	true	
91000	1	228	true	Palghar
91100	1	228	true	
91200	1	228	true	
91800	1	228	true	

Figure 13: Predicted positions of the trains with 100000 passengers

	A	B	C	D	E
1	Distance	PosnConf	NumUserInput	isPeak	
21	11800	0.9999838321	17	true	Matunga road
22	11900	0.9999838321	17	true	
61	17700	0.9999951534	27	true	Santacruz
62	17800	0.9999951534	27	true	
95	22900	1	1102	true	
96	23000	1	1102	true	Jogeshwari
97	23100	1	1102	true	
98	23200	1	1102	true	
99	23300	1	1102	true	
100	23400	1	1102	true	
101	23500	1	1102	true	
102	23600	1	1102	true	
103	23700	1	1102	true	
104	23800	1	1102	true	
105	23900	1	1102	true	
106	24000	1	1102	true	
107	24100	1	1102	true	
108	24200	1	1102	true	
109	24300	1	1102	true	
140	84200	1	258	true	Kelve road
141	84300	1	258	true	
142	84400	1	258	true	
143	84500	1	258	true	
181	91000	0.8597639822	7	true	Palghar
182	91100	0.8597639822	7	true	
202					

Figure 14: Predicted positions of the trains with 3000 users

0.0.8 With no of passengers= 100000 and no of trains=10

Distance	PosnConf	NumUserInput	isPeak		Stations
5500	1		546	true	MumbaiCentral
5600	1		546	true	
5700	1		546	true	
5800	1		546	true	
5900	1		546	true	
6000	1		546	true	
6100	1		546	true	
6200	1		546	true	
11400	1		689	true	Dadar
11500	1		689	true	
11600	1		689	true	
11700	1		689	true	
11800	1		689	true	
11900	1		689	true	
12000	1		689	true	
12100	1		689	true	
17300	1		857	true	Khar Road
17400	1		857	true	
17500	1		857	true	
17600	1		857	true	
17700	1		857	true	
17800	1		857	true	
17900	1		857	true	
18000	1		857	true	
22800	1		38092	true	
22900	1		38092	true	
23000	1		38092	true	
23100	1		38092	true	
23200	1		38092	true	
23300	1		38092	true	
23400	1		38092	true	
23500	1		38092	true	Jogeshwari
23600	1		38092	true	
23700	1		38092	true	
23800	1		38092	true	
23900	1		38092	true	
24000	1		38092	true	
24100	1		38092	true	
24200	1		38092	true	
24300	1		38092	true	
83700	1		8291	true	KelveRoad
84300	1		8291	true	KelveRoad
84400	1		8291	true	
84500	1		8291	true	
84600	1		8291	true	
85200	1		8291	true	
90400	1		228	true	Palghra
91000	1		228	true	Palghra
91100	1		228	true	
91200	1		228	true	
91300	1		228	true	
91900	1		228	true	Umroli-Boisar
97800	1		80	true	Umroli-Boisar
97900	1		80	true	

Figure 15: Predicted positions of the trains with 100000 passengers

0.0.9 With no of passengers= 500000 and no of trains=10

Distance	PosnConf	NumUserInput	isPeak		Stations
5500		1	2714	true	MumbaiCentral
5600		1	2714	true	
5700		1	2714	true	
5800		1	2714	true	
5900		1	2714	true	
6000		1	2714	true	
6100		1	2714	true	
6200		1	2714	true	
11400		1	3506	true	Dadar
11500		1	3506	true	
11600		1	3506	true	
11700		1	3506	true	
11800		1	3506	true	
11900		1	3506	true	
12000		1	3506	true	
12100		1	3506	true	
17300		1	4407	true	Khar Road
17400		1	4407	true	
17500		1	4407	true	
17600		1	4407	true	
17700		1	4407	true	
17800		1	4407	true	
17900		1	4407	true	
18000		1	4407	true	
22800		1	191220	true	
22900		1	191220	true	
23000		1	191220	true	
23100		1	191220	true	
23200		1	191220	true	
23300		1	191220	true	
23400		1	191220	true	
23500		1	191220	true	Jogeshwari
23600		1	191220	true	
23700		1	191220	true	
23800		1	191220	true	
23900		1	191220	true	
24000		1	191220	true	
24100		1	191220	true	
24200		1	191220	true	
24300		1	191220	true	
83700		1	41745	true	KelveRoad
84300		1	41745	true	KelveRoad
84400		1	41745	true	
84500		1	41745	true	
84600		1	41745	true	
85200		1	41745	true	Palghar
90400		1	1036	true	Palghar
91000		1	1036	true	
91100		1	1036	true	
91200		1	1036	true	
91300		1	1036	true	
91900		1	1036	true	
97100		1	459	true	Umroli-Boisar
97700		1	459	true	Umroli-Boisar
97800		1	459	true	
97900		1	459	true	
98000		1	459	true	
98600		1	459	true	Umroli-Boisar

Figure 16: Predicted positions of the trains with 500000 passengers