Adrian-James Gevero

PROGRAMMING ASSIGNMENT DATA:

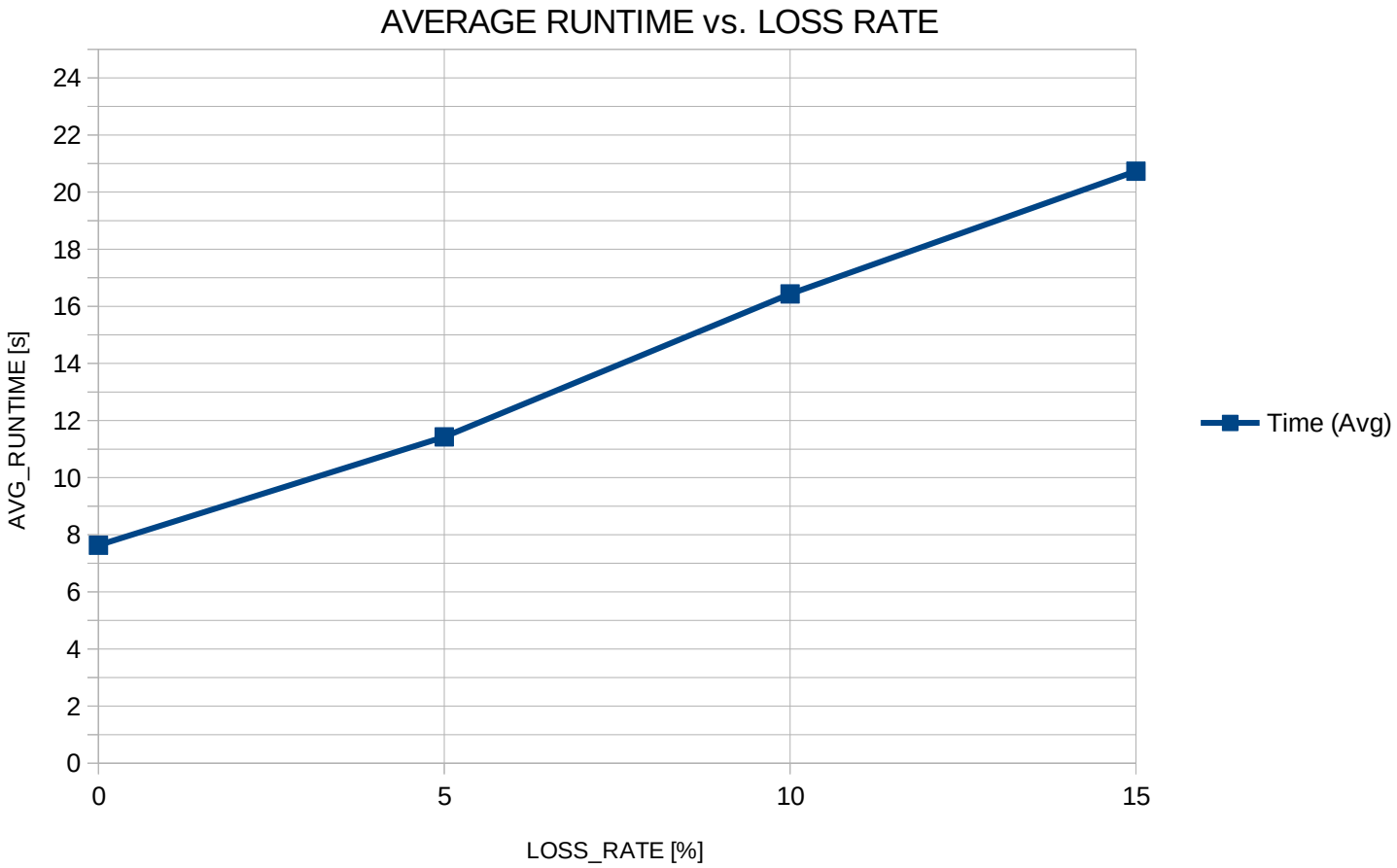
Part B:

Collected Data:

AVERAGE_DELAY = 100ms **LOSS_RATE = {0,5,10,15} %**

AVG_DEL [ms]	LOSS_RATE [%]	Time [s]	Time (Avg)
100	0	7.63617	7.633212
		7.63174	
		7.63478	
		7.63081	
		7.63425	
		7.63598	
		7.62802	
		7.63377	
		7.63310	
		7.63350	
100	5	10.62768	11.428747
		13.62146	
		13.62615	
		9.62967	
		11.63159	
		11.63009	
		10.63002	
		8.62900	
		14.63184	
		9.62997	
100	10	15.63418	16.433794
		8.62986	
		18.63562	
		16.63336	
		15.63266	
		16.63504	
		21.63604	
		14.63449	
		17.63285	
		18.63384	
100	15	21.63272	20.731642
		16.63116	
		24.63850	
		18.62975	
		21.63099	
		22.63111	
		19.63192	
		22.63111	
		18.62975	
		20.62941	

Corresponding Plot:



Description:

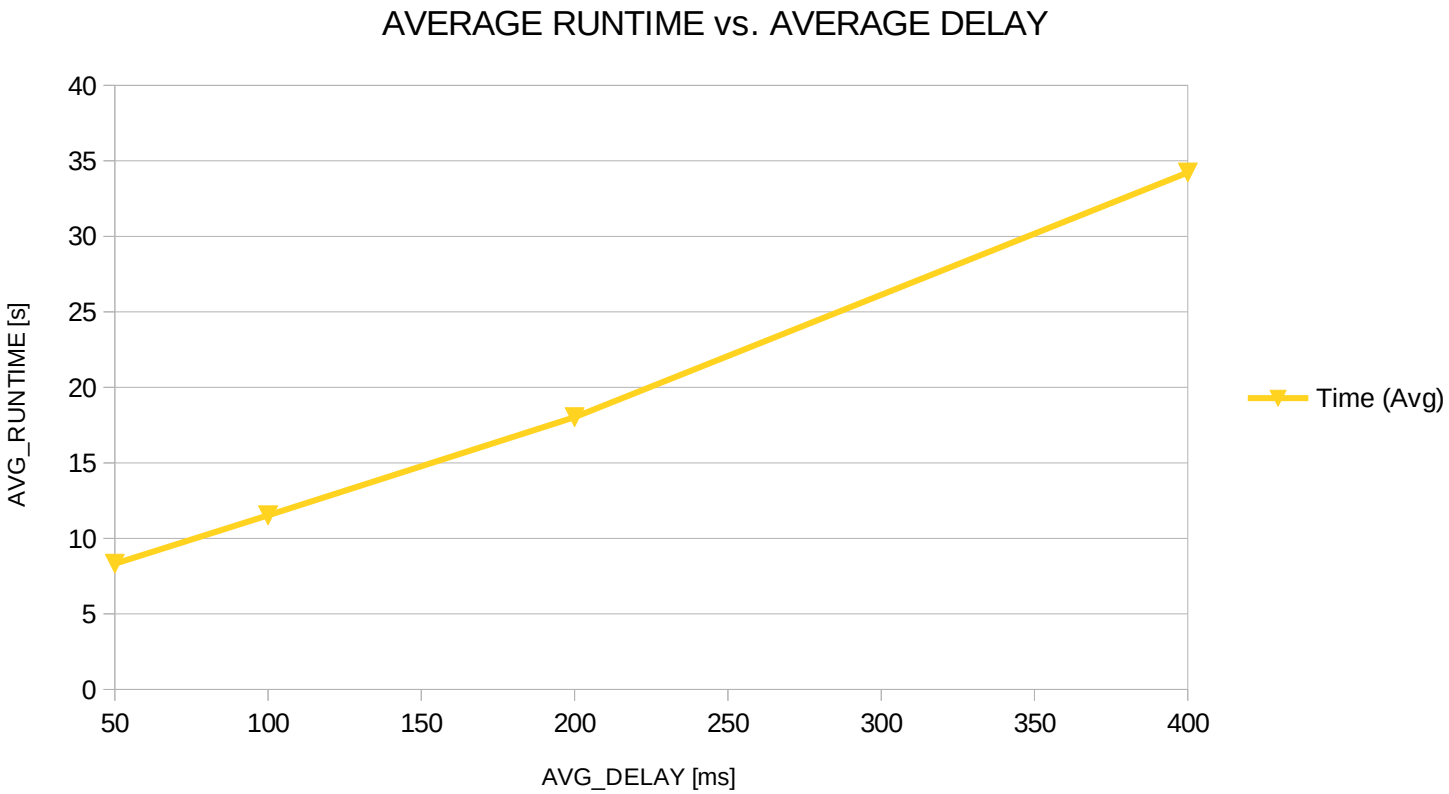
The Data above and its plot depict the increase in runtime that corresponds with an increase in loss rate. Both increases are linear and the resulting curve also follows a particularly linear growth. This implies that their relationship is directly linear. The runtime in general is quite large due to the size of the file being transported (first chapter of Lewis Carroll's ALICE IN WONDERLAND).

Collected Data:

AVERAGE_DELAY = {50,100,200,400}ms **LOSS_RATE = 5 %**

AVG_DEL [ms]	LOSS_RATE [%]	Time [s]	Time (Avg)
50	5	7.82188	8.321605
		9.82143	
		9.82287	
		8.82150	
		7.82152	
		7.82314	
		4.81951	
		5.82134	
		10.82151	
		9.82135	
100	5	10.62457	11.525799
		9.62714	
		12.62886	
		11.62838	
		12.62892	
		12.62864	
		11.62253	
		10.62426	
		13.62520	
		9.61949	
200	5	18.23033	18.025684
		17.22844	
		19.22627	
		20.22758	
		17.22649	
		18.22676	
		16.22122	
		17.22257	
		18.22382	
		18.22336	
400	5	33.42688	34.227763
		31.42525	
		35.42760	
		36.42930	
		33.42791	
		35.42809	
		31.42717	
		36.42990	
		35.42977	
		33.42576	

Corresponding Plot:



Description:

The data depicted above shows the relationship between the Average delay variable and the average overall runtime. The Average delay value provides us the added functionality of simulating propagation delay (which is needed to gather relevant data). This is necessary considering both the Client and the Server are being hosted on a single machine (localhost). The average delay helps to simulate the propagation delay that would occur when sending transmissions farther distances.