**COMMAND FOR USAGE**

The program can be used by typing below line into terminal:

./two time\_unit total\_time probability snap\_time

time\_unit: can be -s (for second) or -m (for minute)

total\_time: execution time

probability: It has double precision, 0.00.

snap\_time: time value to show snapshots. Its unit must be second.

Example Usage:

./two -m 13 0.13 130

**PROBABILITES**

We used different random numbers to handle the probabilities of lanes. In other words, we used different sample spaces for each lane. For example, there would a new car in South lane whereas there is not in West lane.

The probability of having a new car in North lane is **1-p** not 1-3p. Its probability is also from the different sample space. For example, we would have new cars in both North and South lanes simultaneously.

**PRORITY SCHEDULING**

We put lanes into array. The priorities are N>E>S>W in any equality. In array N is #3 element and W is #0 element. We implemented functions which gives max element and its id in array such that in any equality the priority is handled easily. The more explanation can be found in .c file.

**PART III**

We used a condition variable and a flag variable to handle this part. When police begins to play his cell phone flag becomes 1 and police starts to wait for honk. When a car comes, the honk is signaled and flag becomes zero. Honk can be signaled in any lane.