The three algorithms are designed in such a way that each one is an improvement on the other.

**Algorithm 1**

* classes:

elevatorFast

* inputs:

int Totalfloors, numberofPersons;

int timeBtnfloor; int startLoc;

* functions:

void randomNumberGen(int numberOfrequests[])

--> generates random number of requests

processRequests(numberOfrequests, timeBtnfloor, startLoc)

---> processes all the requests on first come first serve basis

**Algorithm 2**

* classes:

elevator

* inputs:

int Totalfloors, numberofPersons;

int timeBtnfloor; int startLoc;

* functions:

void randomNumberGen(int numberOfrequests[])

🡪 generates random number of requests.

-🡪 sorts the requests in an order to process them accordingly

processRequests(numberOfrequests, timeBtnfloor, startLoc)

🡪 processes all the requests on a sorted basis where the lower floor requests are solved first.

**Algorithm 3**

* classes:

elevatorfaster

* inputs:

int Totalfloors, numberofPersons;

int timeBtnfloor; int startLoc;

* functions:

void randomNumberGen(int numberOfrequests[])

🡪 generates random number of requests.

-🡪 sorts the requests in an order to process them accordingly

processRequests(numberOfrequests, timeBtnfloor, startLoc)

🡪 processes all the requests on a sorted basis where the priority is given to the floors nearer to the elevator start location.