

The application is a simulation of a Rover Robot moving on a square zone to be explored, of dimensions 10 units x 10 units. Coordinates start at 0,0 (bottom left corner).

- The input is an input stream of unknown length that will contain a series of lines terminated in \n.

- The following commands may be sent:

DEPLOY X,Y,F : Deploys the robot to position X,Y if it is a valid position

PIT X,Y : Adds a pit

MOVE : Moves the robot by 1 position in the current orientation direction

LEFT : Robot will stay in the same coordinate, but face the direction to the left of the current one (i.e.: SOUTH -> EAST)

RIGHT : Robot will stay in the same coordinate, but face the direction to the right of the current one (i.e.: SOUTH -> WEST)

REPORT : Issue a line to the report in the format "X,Y,DIRECTION" (without quotes and all caps)

- The robot can not be deployed to a position with a pit or off the limits of the zone.

- PIT commands are optional and can only follow a DEPLOY command and precede MOVE, LEFT, RIGHT.

- REPORT commands can happen at any time.

- The first command to be considered is DEPLOY. Commands before this can be safely ignored.

- Failure to parse one line should be logged to System.err but continue

- Multiple DEPLOYs can be called, so:

- PITs can follow any DEPLOY command, not necessarily the first one.

- The robot can't be deployed on a PIT.

- A new DEPLOY command redeploys the "same" robot (there is only one on the board).

- Multiple PIT commands can be issued, as long as they only follow a DEPLOY or another PIT command.

- The robot can't move into PIT or off the zone.

- The following error messages can be reported back (in this exact format):

- "Outside Zone: Ignored" -> When trying to deploy/move out of the zone

- "PIT Detected: Ignored" -> When trying to deploy/move onto a pit.

- "ROBOT Detected: Ignored" -> When trying to add a pit to the current position of the robot.

<p>

Create an application that can read in commands of the following form:

<p>

DEPLOY X,Y,F

PIT X,Y

PIT X,Y

PIT X,Y

MOVE

LEFT

RIGHT

REPORT

We expect back:

- A zip file containing your local repository (create a local git repository for your work). We will evaluate your git history.
- Remove any files that you wouldn't commit (like `target/build`).

We will evaluate:

- How many of the testing scenarios are covered.
- Design, exception handling and proper use of Java APIs.