

Athira (ex-Motorola), Souranil (ex-ThoughtWorks) and 200+ developers have solved Geektrust coding challenges to find great jobs over the last 4 years

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Over 3000 developers from the best companies in the world have trusted us with their code. And we don't look just at the output, but how you get it is more important. We care about how well modelled your code is, how readable, extensible, well tested it is. Check out our <u>coding help page</u> to ensure you get a good score.

Getting started

- 1. Getting the output right is important, but more important is clean code and how well designed your code is. You should **absolutely** see our <u>Help page</u> post on what we look for in your code, and how to get started with the coding challenge.
- 2. See our evaluation parameters here and the badges to earn here.
- 3. We expect a command line app. So no web apps will be considered for evaluation. You don't need data stores either.

Problem context

Our problem is set in the traffic snarls of planet Lengaburu. After the recent Falicornian war, victorious King Shan of Lengaburu wishes to tour his kingdom. But the traffic in Lengaburu is killing. You should see how Silk Dorb gets jammed in the evening!

Write code to help King Shan navigate Lengaburu's traffic.



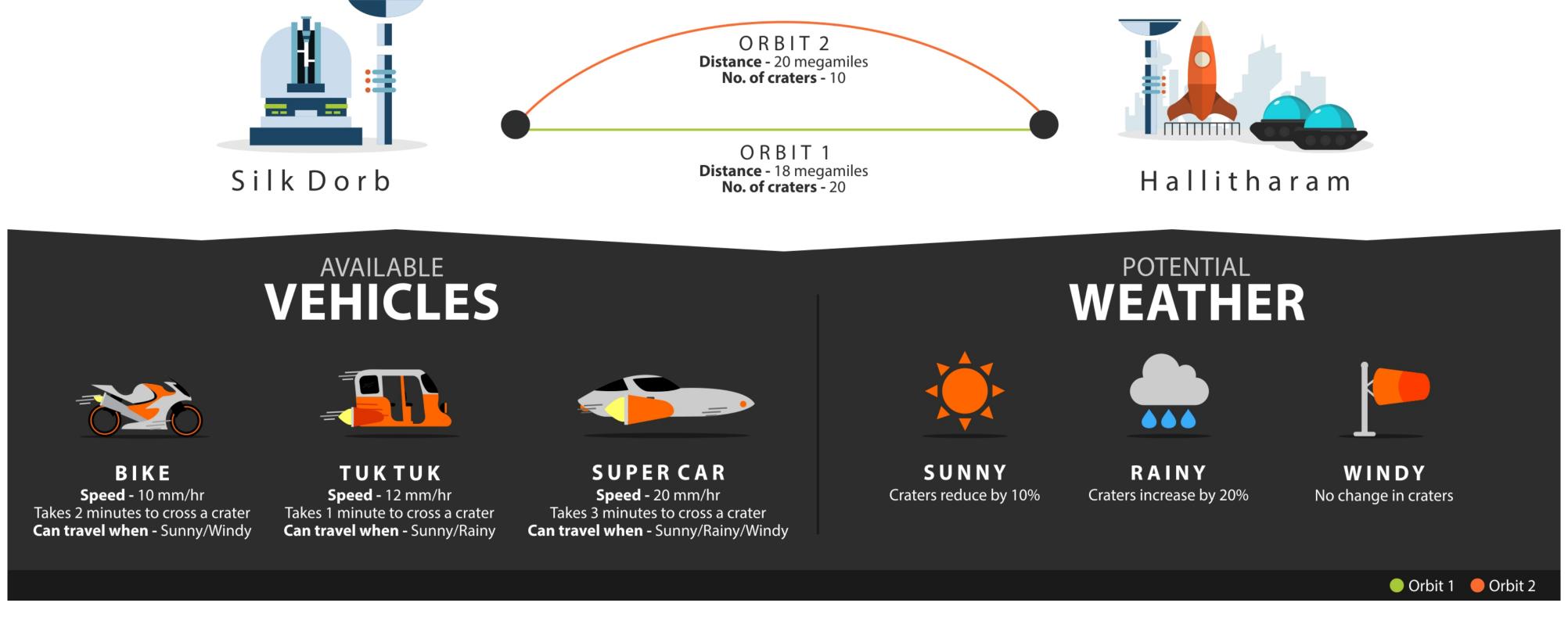
Problem: mission impossible

King Shan wants to visit the suburb of Hallitharam, and has 2 possible orbits and 3 possible vehicles to choose from.

Your coding challenge is to determine which orbit and vehicle King Shan should take to reach Hallitharam the fastest.

AVAILABLE

ORBITS



Travel options

Orbit options:

Orbit 1 - 18 mega miles & 20 craters to cross

Orbit 2 - 20 mega miles & 10 craters to cross

Vehicle options:

Bike - 10 megamiles/hour & takes 2 min to cross 1 crater

Tuktuk - 12 mm/hour & takes 1 min to cross 1 crater

Car - 20 mm/hour & takes 3 min to cross 1 crater

Weather conditions (affects the number of craters in an orbit):

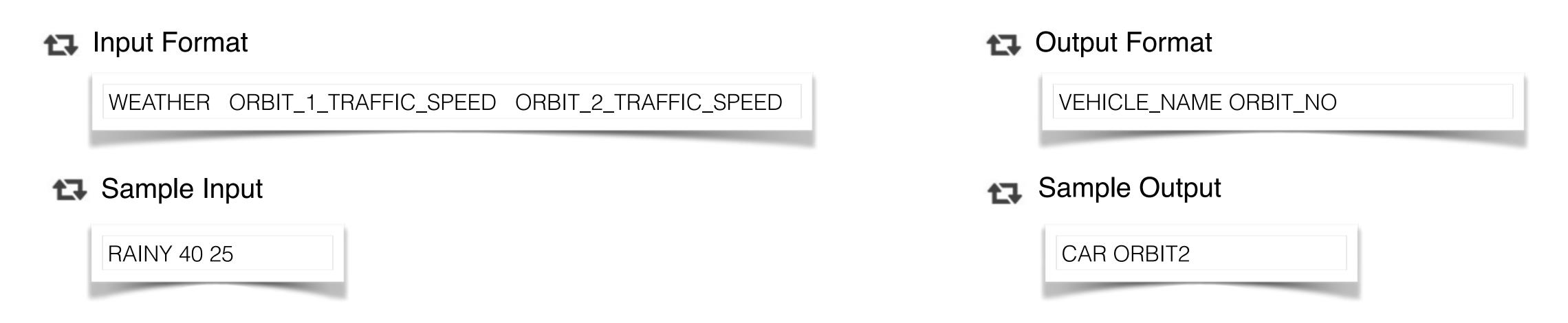
Sunny - craters reduce by 10%. Car, bike and tuktuk can be used in this weather.

Rainy - craters increase by 20%. Car and tuktuk can be used in this weather.

Windy - no change to number of craters. Car and bike can be used in this weather.

Sample input & output

Your program should take the location to the test file as parameter. Input needs to be read from a text file, and output should be printed to the console.



Note: A vehicle cannot travel faster than the traffic speed for an orbit. So even though a car's max speed is 20 megamiles/hour, it can only go at 10 megamiles/hour if that is the traffic speed for that orbit. Also, if there is a tie in which vehicle to choose, use bike, auto, car in that order.

More sample input output scenarios.

Please stick to the Sample input output format as shown. This is very important as we are automating the correctness of the solution to give you a faster evaluation. You can find some sample input output files <u>here</u>.



Java - Instructions to Build & Execute

Solution with build file

If you are writing code in Java with a build system, you have to use either **maven** or **gradle** with the respective build files. Please download them from the links below.

pom.xml build.gradle

Edit the build file to set your '{your.qualified.name.of.main.class}' and add your dependencies if any. Ensure the generated executable is named 'geektrust.jar'.

Post build we then execute the solution by the following command. Read more.

java -jar geektrust.jar <path_to_input_file>

Solution without build file

For a solution without build system, we want you to name your **Main** class as **Geektrust.java**. This is the file that will contain your main method. We build and run the solution by using the following commands. Read more.

javac <path_of_package>/Geektrust.java
java <package>.Geektrust <absolute_path_to_input_file>

Supported Language & Versions

Code submissions are run against a Linux virtualized instance.

Supported language and versions are below:

Language	Supported versions	Supported Tools
C#	dotnet core 2.2, 3.1	dotnet
Go	1.12.x	Go build tool
Java	1.8, 1.11	maven, gradle
Node.js	8.16.x, 10.16.x, 12.6.x	npm, yarn
Python	3.7, 3.8	pip
Ruby	1.9.x, 2.2.x, 2.6.x	rake, bundler-rake

You can upload code in any version of Clojure, C++, Erlang, Groovy, Kotlin, PHP, Scala. We don't have automated tests for these languages yet. So your evaluation will take longer than the others.

Check list - submitting code

- 1. Please compress the file before upload. We accept .zip, .rar, .gz and .gzip
- 2. Name of the file should be the problem set name you are solving. For e.g. if you have solved Family problem, please name your file 'Family.zip'.
- 3. Please upload only source files and do not include any libraries or executables or node_modules folder.
- 4. Usage of non-essential 3rd party libraries will affect your evaluation.
- Add a readme with how to get your code working, and how to test your code.
- 6. Your solution will be downloaded & seen by companies you're interested in. Hence we advise you to provide a solution that will work on any system without any code changes/manual setup.

what next?

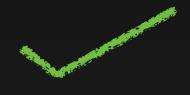
A few good developers

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