

MarsTracker

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Outline

- 1 Weagle Team Information
- 2 Problem statement
- 3 Methodology and Implementation

Weagle

Team members

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Problem Statement

NASA has a database of photograph from three rovers on Mars: Curiosity, Opportunity, and Spirit (inactive as of March 22, 2010). Using the NASA open API, create an app or web page that allows a user to choose a rove, a sol (Martian rotation day) or Earth date, and a camera to view photographs of the Martin surface.

Each rover landed on a different date, so their sol days are different. Not every camera is used every day, in fact, sometimes there are no photographs at all for a given day and rover. Spirit stopped transmitting on March 22, 2010. <https://api.nasa.gov/index.html> (1,000 requests per hour limit)

Language and platform

We used Java and Android Studio to build an app to display the photos of the Martian surface. With this app, one can

- select from one of the three rovers: Curiosity, Opportunity, and Spirit on the home screen,
- select one camera from the available options for the given rover,
- choose a sol or an earth date,
- then, results are shown on the screen

If conditions of a combination of the first three meet with the photo(s) in the database, photo(s) will be presented in the view. If not, "No photos found!" message will be displayed on the screen.

Additionally, we provide photographs from each rover, in a descending order of date by default.

What's new?

- Additional design to present photos of a given rover with a descending order of date. Simply click on the image buttons
- Enlargement and detailed description of chosen photo within a photo galley. Just click on the chosen photo

Nightmares and recipes

- Layouts – It is a pain in the button to design a good layout for an app: buttons, image, margins, interactions (relationships) ...
- Details – Detail is the king of app development
- Solutions – Calm down and redesign and re-redesign OR start over AND repeat the above till ... who knows when

Acknowledgements

