

|| CSC257 SEMESTER PROJECT

OVERVIEW

1. Project Background and Description

The semester project for CSC257 will consist in implementing a Web application in PHP that will connect to NASA's API web services and return information about current and past asteroids tracked by NASA. The data will be displayed in a user friendly searchable and filterable layout. Access to the Web pages should be protected by a login functionality. Further data on individual asteroids will be displayed once a system user clicks on a result item. The project is to be done on an individual basis, but students may ask each other questions about project specifics.

2. Project Scope

Students must show that they have connected to NASA's asteroid API web service, attained correct data based on user inputted query parameters, and can ascertain and display further data from additional NASA web services on any asteroid select by an application user.

3. High-Level Requirements

- 1) Ascertain a NASA API key at: <https://api.nasa.gov/>
- 2) Ascertain data on current or historical asteroid data based on the following API:
https://api.nasa.gov/neo/rest/v1/feed?start_date={start_date}&end_date={end_date}&api_key=DEMO_KEY
- 3) Create a UI that allows users to filter and search through asteroid results.
 - a. show asteroid data in a summary table format
 - b. allow to click on data row to see more data on asteroid:
https://api.nasa.gov/neo/rest/v1/neo/{asteroid_id}?api_key=DEMO_KEY
- 4) Users need to sign up to access the Web pages of the Web application
- 5) Users can access the Web pages of the application only after logging in

DEMO_KEY: gx1daXuj2m8vbtrVKtHALsIVu8U2yvBOWcbyjch8

4. Asteroid Summary Screen

Display the following data points on the Summary Screen:

- Details link

- ID
- Name
- nasa_jpl_url
- close_approach_data/0/relative_velocity/miles_per_hour:
- close_approach_data/0/miss_distance/miles:

5. Asteroid Details Screen

Display the following data points on the Summary Screen:

- Name
- Close_approach_date
- Initial relative_velocity/miles_per_hour:
- Initial miss_distance/miles:
- Latest relative_velocity/miles_per_hour:
- Latest miss_distance/miles:
- orbital_data/first_observation_date
- orbital_data/last_observation_date