

L13-T6: Displaying SpaceX Crewed Mission Details

SpaceX – the space company is publishing their launch details via public API. Our goal is to create a search system that fetches details of manned missions during a given year and gives honor to the men & women who conquer space one reusable rocket at a time :-P

For this task, we will be using SpaceX’s Launches V5 and Crew V4 APIs to get details about them. See the API descriptions here:

- <https://github.com/r-spacex/SpaceX-API/blob/master/docs/launches/v5/one.md>
 - <https://github.com/r-spacex/SpaceX-API/blob/master/docs/crew/v4/one.md>
1. At the start of the program, ask user for the year to search for.
 - a. If the user gives a faulty input, catch the error and keep on asking for proper input
 2. Once the year is selected, get the launches for the given year from the API: <https://api.spacexdata.com/v5/launches>
 - a. Construct a list of entries where “date_utc” is in year 2022 AND “success” == True
 - b. Filter out all launches where “crew” is an empty list (e.g. [] or len(launch[“crew”]) == 0)
 3. Display the listing of all successful flights in the given year with crew
 4. Ask the user input which flight details to show
 - a. Show the details of each flight according to the example run details (yes, the formatting also!)
 - b. Get the crew details for each crew member on this flight
 - i. Use <https://api.spacexdata.com/v4/crew/:id> (replace :id with the id of the crew member)
 - c. Display the crew details with the flight details

Example run:

```
Welcome to Space X manned missions explorer
Please, give the year to search for: random stuff
Faulty input, please try again.
Please, give the year to search for: 2022
Launch information descriptor
We have 3 launches to choose from.
-1) Exit
0) 2022-04-08T15:17:00.000Z - Ax-1
1) 2022-04-27T07:52:00.000Z - Crew-4
2) 2022-10-05T16:00:00.000Z - Crew-5
Select launch to display more information: 2
-----

Name: Crew-5
Flight Number: 187
Date: 2022-10-05T16:00:00.000Z
Mission: Missing
Mission status: Successful
Launch Wikipedia article: https://en.wikipedia.org/wiki/SpaceX_Crew-5
The launch had a crew of 4
```

```
::CREW MEMBERS::
  Crew member 1
  Commander Nicole Aunapu Mann
  Agency:NASA
  Wikipedia page: https://en.wikipedia.org/wiki/Nicole\_Aunapu\_Mann

  Crew member 2
  Pilot Josh A. Cassada
  Agency:NASA
  Wikipedia page: https://en.wikipedia.org/wiki/Josh\_A.\_Cassada

  Crew member 3
  Mission Specialist 1 Koichi Wakata
  Agency:JAXA
  Wikipedia page: https://en.wikipedia.org/wiki/Koichi\_Wakata

  Crew member 4
  Mission Specialist 2 Anna Kikina
  Agency:Roscosmos
  Wikipedia page: https://en.wikipedia.org/wiki/Anna\_Kikina

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Select launch to display more information: 1
-----

Name: Crew-4
Flight Number: 159
Date: 2022-04-27T07:52:00.000Z
Mission: Missing
Mission status: Successful
Launch Wikipedia article: https://en.wikipedia.org/wiki/SpaceX\_Crew-4
The launch had a crew of 4

::CREW MEMBERS::
  Crew member 1
  Commander Kjell Lindgren
  Agency:NASA
  Wikipedia page: https://en.wikipedia.org/wiki/Kjell\_N.\_Lindgren

  Crew member 2
  Pilot Robert Hines
  Agency:NASA
  Wikipedia page: https://en.wikipedia.org/wiki/Robert\_Hines\_\(astronaut\)

  Crew member 3
  Mission Specialist 1 Samantha Cristoforetti
  Agency:ESA
  Wikipedia page: https://en.wikipedia.org/wiki/Samantha\_Cristoforetti

  Crew member 4
  Mission Specialist 2 Jessica Watkins
  Agency:NASA
  Wikipedia page: https://en.wikipedia.org/wiki/Jessica\_Watkins
```

```
Launch information descriptor
We have 3 launches to choose from.
-1) Exit
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1) 2022-04-27T07:52:00.000Z - Crew-4
2) 2022-10-05T16:00:00.000Z - Crew-5
Select launch to display more information: -1
```