

COMP 3133 – Lab Test – 2 (06%)

Submission Date and Time: 03rd April 2023, 22:00 PM (Week – 13)

Create Angular Application to create following features:

- 1) Create angular app name **studentid-lab-test2-comp3133** and create GitHub repository to commit all your code. **[10 points]**
- 2) Host application on Cyclic/Vercel, etc. **[10 points]**
- 3) Create component having name **missionlist** component to display list of all SpaceX launches using given REST API endpoint. **[20 points]**

<https://api.spacexdata.com/v3/launches>

Display following fields for each mission (**See sample screen**)

- mission_name
- launch_year
- details
- mission_patch_small

- 4) Implement the search or filter by year of launch on mission list component name **missionfilter**. **[10 points]** (**See sample screen**)

https://api.spacexdata.com/v3/launches?launch_year={{year}}

- 5) Create component having name **missiondetails** which will display details of selected mission from previous **missionlist** page. (**See sample screen**) **[20 points]**

https://api.spacexdata.com/v3/launches/{{flight_number}}

Hint: Pass data to next component using **@Input()**

- 6) Create service to fetch data for given REST API. (**See sample screen**) **[10 points]**

- 7) Create interface/class to maintain structure of data fetch from API. **[10 points]**
- 8) Use Angular Material to design application. **[10 points]**

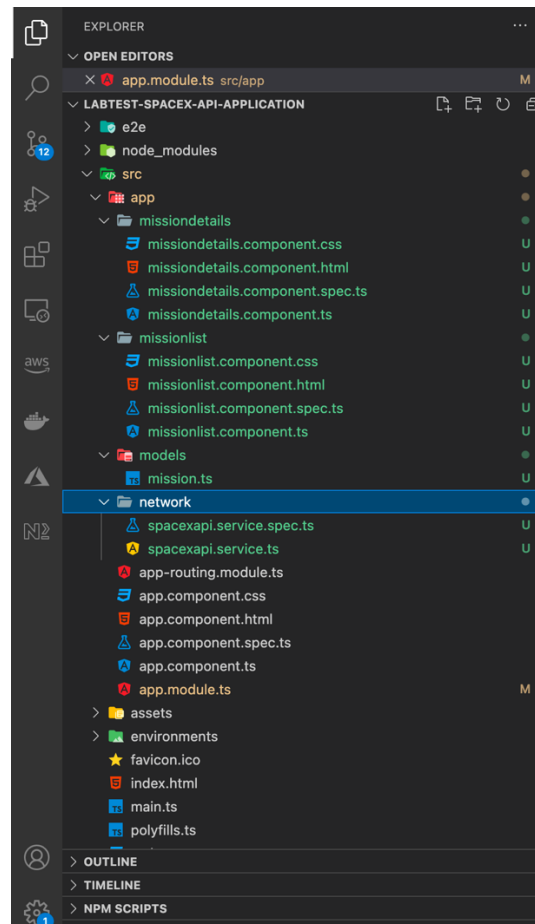
References for SpaceX API

- <https://docs.spacexdata.com/#bc65ba60-decf-4289-bb04-4ca9df01b9c1>

Submission:

- 1) Upload ZIP file of you source code to black board on or before deadline.
- 2) Provide GitHub project list in comment while submitting your code.
- 3) Take screenshots of both pages application to show your work evidence and upload to black board.
- 4) Submit Cyclic or Vercel hosting link.

Folder Structure of application



Sample Screen

Figure 1 Mission List






| SpaceX Mission Launch List | |
|--|--|
|  | FalconSat 2006 Engine failure at 33 seconds and loss of vehicle |
|  | DemoSat 2007 Successful first stage burn and transition to second stage, maximum altitude 289 km, Premature engine shutdown at T+7 min 30 s, Failed to reach orbit, Failed to recover first stage |
|  | Trailblazer 2008 Residual stage 1 thrust led to collision between stage 1 and stage 2 |
|  | RatSat 2008 Ratsat was carried to orbit on the first successful orbital launch of any privately funded and developed, liquid-propelled carrier rocket, the SpaceX Falcon 1 |
|  | RazakSat 2009 |

Figure 2 Mission filter

Launch Date

2006

2007

2008

2009

2010

2011

2012

2013

2014

2015

2016

2017

2018

2019

2020

Successful Launch

true

false

Successful Land

true

false




FalconSat #1

Mission Ids -

Launch Year 2006

Successful Launch No

Successful Landing No Data




DemoSat #2

Mission Ids -

Launch Year 2007

Successful Launch No

Successful Landing No Data



Trailblazer #3

Mission Ids -

Launch Year 2008

Successful Launch No

Successful Landing No Data




RatSat #4

Mission Ids -

Launch Year 2008

Successful Launch Yes

Successful Landing No Data




RazakSat #5

Mission Ids -

Launch Year 2008

Successful Launch Yes

Successful Landing No Data



Falcon 9 Test Flight #6

Mission Ids EE86F74

Launch Year 2015

Successful Launch Yes

Successful Landing Yes



COTS 1 #7

Mission Ids EE86F74

Launch Year 2010

Successful Launch Yes

Successful Landing Yes



COTS 2 #8

Mission Ids EE86F74

Launch Year 2010


Successful Launch Yes

Successful Landing Yes

Developed By - Jeevan Praksah

Figure 3 Mission Details

SpaceX Mission Details



Mission - ABS-3A / Eutelsat 115W B

Name : ABS-3A / Eutelsat 115W B

Launch Year: 2015

Launch Year: 2015

Rocket

Name : Falcon 9

Type : v1.1

Launch Site

Name : Cape Canaveral Air Force Station Space Launch Complex 40

Launch Details

The launch was Boeing's first-ever conjoined launch of a lighter-weight dual-commsat stack that was specifically designed to take advantage of the lower-cost SpaceX Falcon 9 launch vehicle. Per satellite, launch costs were less than \$30 million. The ABS satellite reached its final destination ahead of schedule and started operations on September 10.

More Info on Launch Details

