# Software Engineering Tools Lab

# Assignment No-2

# (Module 2- Software Development Frameworks)

# Due date-15/02/2022

# By:

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1. **Node.Js**

**1.Original Author :** [Microsoft Corporation](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=Microsoft&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVOIAsU2Ky0y0VLOTrfST83MLSktSi_SL89NKyhOLUq3yizLTM_MSc-ITS0sy8osWsXL6ZiYX5YPkd7AyAgBjGiPjTgAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoAXoECCIQAw), [Ryan Dahl](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=Ryan+Dahl&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVAKzM9LjKwzTtFSzk630k_NzC0pLUov0i_PTSsoTi1Kt8osy0zPzEnPiE0tLMvKLFrFyBlUm5im4JGbk7GBlBAB8LvkSUAAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoAnoECCIQBA), [OpenJS Foundation](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=OpenJS+Foundation&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVOLVT9c3NMwySik2MDK20FLNTrbST87PLSgtSS3SL85PKylPLEq1yi_KTM_MS8yJTywtycgvWsQq6F-QmucVrOCWX5qXkliSmZ-3g5URAAI-xEFbAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoA3oECCIQBQ), [Bryan Cantrill](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=Bryan+Cantrill&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVOIEsc2r0iuTtFSzk630k_NzC0pLUov0i_PTSsoTi1Kt8osy0zPzEnPiE0tLMvKLFrHyORVVJuYpOCfmlRRl5uTsYGUEAEI4de9UAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoBHoECCIQBg)

**2.Developers :** OpenJS foundation

**3. Initial release :** May 27, 2009; 12 years ago

**4. Stable release :** (16.14.0)

**5. Preview release :** 19-10-2021

**6. Repository (with cloud support ) :**https://github.com/nodejs/node

https://cloud.google.com/nodejs

**7. Written in (Languages) :** [JavaScript](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=JavaScript&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVOIAsY0KLM21dDLKrfST83NyUpNLMvPz9Ivz00rKE4tSrQqK8tOLEnNzM_PSFXIS89JLE9NTF7FyeSWWJQYnF2UWlOxgZQQALTlwZFYAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoAXoECCEQAw), [C](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=C&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVOIAsQ1LzJK0dDLKrfST83NyUpNLMvPz9Ivz00rKE4tSrQqK8tOLEnNzM_PSFXIS89JLE9NTF7EyOu9gZQQAwf6d1E0AAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoAnoECCEQBA), [C++](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=C%2B%2B&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVOIAsbPSC9O1dDLKrfST83NyUpNLMvPz9Ivz00rKE4tSrQqK8tOLEnNzM_PSFXIS89JLE9NTF7EyO2tr72BlBAA3H2uwTwAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoA3oECCEQBQ), [CoffeeScript](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=CoffeeScript&stick=H4sIAAAAAAAAAOPgE-LSz9U3SEqqSLOwVAKzM7KSTXMNtHQyyq30k_NzclKTSzLz8_SL89NKyhOLUq0KivLTixJzczPz0hVyEvPSSxPTUxex8jjnp6WlpgYnF2UWlOxgZQQAyd_vb1oAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoBHoECCEQBg)

**8. Operating System support :** [z/OS](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=z/OS&stick=H4sIAAAAAAAAAONgVuLQz9U3sCzKyljEylKl7x8MANLpX3sTAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoAXoECCkQAw), [Linux](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=Linux&stick=H4sIAAAAAAAAAONgVuLUz9U3SCuoqipYxMrqk5lXWgEATgerNhUAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoAnoECCkQBA), [macOS](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=macOS&stick=H4sIAAAAAAAAAONgVuLQz9U3MDWtLFrEypqbmOwfDADb5b_yFAAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoA3oECCkQBQ), [Microsoft Windows](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=Microsoft+Windows&stick=H4sIAAAAAAAAAONgVuLQz9U3MCmKt1jEKuibmVyUX5yfVqIQnpmXkl9eDABrmtGqIAAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoBHoECCkQBg), [SmartOS](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=SmartOS&stick=H4sIAAAAAAAAAONgVuLUz9U3MDM3K05ZxMoenJtYVOIfDAAzYydkFwAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoBXoECCkQBw), [FreeBSD](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=FreeBSD&stick=H4sIAAAAAAAAAONgVuLQz9U3MKpMqVjEyu5WlJrqFOwCAOg-RnYWAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoBnoECCkQCA), [OpenBSD](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=OpenBSD&stick=H4sIAAAAAAAAAONgVuLQz9U3MM0pz13Eyu5fkJrnFOwCAL211REWAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoB3oECCkQCQ), [IBM AIX](https://www.google.com/search?sxsrf=APq-WBubORGjv2bkICzXE07KaBXYNZEy4A:1644844912807&q=IBM+AIX&stick=H4sIAAAAAAAAAONgVmLXz9U3KC8vXMTK7unkq-DoGQEAqOf3NBUAAAA&sa=X&ved=2ahUKEwietfPlpP_1AhUdklYBHX6-AFsQmxMoCHoECCkQCg)

**9. Platform ,portability :** Node JS runs on V8 engine

**10. Available in (Total languages) :** JavaScript

**11. List of languages supported :** JavaScript is the only language that Node.js supports natively, but many compile-to-JS languages are available.

**12. Type (Programming tool, environment etc.) :** runtime environment

**13. Website :** https://nodejs.org/en/

**14. Features :**

* Cross-platform compatibility

### The convenience of using one coding language

### V8 Engine

### Facilitates quick deployment and microservice development

### Scalable

### Commendable data processing ability

### Active open-source community

### Additional functionality of NPM

### Advanced hosting ability of NodeJs

### Fast data streaming

**15. Size (in MB, GB etc.) :** 436 MB

**17. Type of software (Open source/License) :** Open source

**18. If License- Provide details :** No License

**19. Latest version :** 17.5.0

**20. Cloud support (Yes/No) :** YES (Google Cloud)

**21. Applicability :** High performance and scalability, Freedom to develop cross platform applications

**22. Drawbacks :** One of the biggest disadvantages of Node. js is that it is unable to perform heavy computation tasks. Node. js is capable of executing JavaScript code on a single thread basis

2. Implement linear regression problem using Google colab (Perform preprocessing, training and testing)

Dataset 3- <https://archive.ics.uci.edu/ml/datasets/Appliances+energy+prediction>















