

15/2/22

## Software Engineering Tools Lab

### Assignment No-2

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### Q1) Ruby On Rails

1. **Original author** - Original author of Ruby On Rails is David Heinemeir Hansson.
2. **Developers** - David Heinemeier Hansson
3. **Initial release** - The initial release of Ruby On Rails was Rails 0.9.3 released on January 4, 2005
4. **Stable release** - The stable release of Ruby On Rails was Rails 7.0.1 released on January 6, 2022.
5. **Preview release** - 7.0.1
6. **Repository (with cloud support )** - [github.com/rails/rails](https://github.com/rails/rails)
7. **Written in (Languages)** - It is written in Ruby language.
8. **Operating System support** - It supports Mac OS X, Linux and Microsoft Windows operating system.
9. **Platform ,portability** - Yes
10. **Available in (Total languages)** - Ruby
11. **List of languages supported** - It supports Ruby , HTML, CSS, Javascript.

12. **Type (Programming tool, integrated development environment etc.) -**

It is a server-side web application development framework.

13. **Website -** <https://rubyonrails.org/>

14. **Features -** Read Below

Some Important Feature of Ruby On Rails are:

- **Model - view - controller Architecture:** - Ruby on Rails used MVC architecture, and it contains three components, i.e., model, view, and controller. Here, the model is used to maintain the relationship between object and database, the view is templates that are used to build the data users for web applications, and the controller is used to merge model and view together.
- **Active Records :-** It is a powerful library that allows the developer to design the database interactive queries.
- **Built-in Testing :-** Ruby on Rails provides its own set of tests that will run on your code.
- **Programming Language :-** The syntax of Ruby On Rails is close to English language, so it is easier to structure your thinking and writing the code.
- **Meta Programming :-** It uses the metaprogramming technique to write programs.
- **Scaffolding :-** This feature allows the developer to define how the application database works. After defining the work of the application database the framework automatically generates the required code according to the given definition. This technique creates interfaces automatically.

15. **Size (in MB, GB etc.) :-** 57.8 MB

16. **Privacy and Security :-** The framework is by default, installed and enabled with some security measures. When using Ruby in Rails, you are following a secure development process.

17. **Type of software (Open source/License):** It is an open source framework.

18. **If License- Provide details.**

19. **Latest version :-** Stable release - 7.0.1 – 6 January 2022

20. **Cloud support (Yes/No) -** Yes

## **21. Applicability:**

- Ruby on Rails is used for creating online stores with decent and sophisticated browsing and purchasing options.
- Ruby on Rails can also be used for creating efficient stock marketing platforms.
- Ruby on Rails can be a good choice while creating Non-standard complex projects.
- Rails provides tooling that helps us to deliver more features in less time.
- Ruby code quality is significantly higher than PHP or NodeJS equivalents.
- It is also beneficial to use Ruby on Rails to create Social Networking sites.

## **22. Drawbacks (if any)**

- Runtime Speed and Performance
- Lack of Flexibility
- High cost of wrong decisions in development

## **Q2) Google Collab Link**

<https://colab.research.google.com/drive/1F1iacwRzKkuXdg3e-dioP1PowGkXru9?usp=sharing>