PHP and Ruby on Rails serve similar purposes as backend technologies but have distinctive characteristics. PHP, a general-purpose scripting language, is widely known for its role in web development, offering a broad range of frameworks and direct embedding in HTML. In contrast, Ruby on Rails, commonly referred to as Rails, is a web application framework written in the Ruby programming language. It promotes Convention over Configuration (CoC) and adheres to the Don't Repeat Yourself (DRY) principle. While PHP provides more flexibility in structure, Rails offers rapid development through its predefined set of conventions. Both have their unique communities, documentation, and learning curves, catering to different developer preferences and project requirements.