

# PROJECT REPORT

## “DEVQUERY”

Subject: System Analysis & Design Lab

Sec: A

Submitted to: Suman Ahmmed

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Date  
19/09/2018

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# INTRODUCTION

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**1. Project Introduction:** Devquery is an online community for developers. This site is made for providing a network for developers so that they can share their problems and get some efficient solution from other developers' people.

**2. Purpose of the project:** Developers are often face many problems which they cannot solve by themselves. They need some help from someone who can help them. Our main objective is to helping developers by connecting them in a network or community where they can know each other, share their problems on specific topic, help others by answering their questions.

# Information Gathering

## 1. Benchmark Products:

HASHNODE

The screenshot shows the Hashnode website interface. A red box highlights the 'Ask question' button in the top navigation bar, with a red arrow pointing to it from the text 'Sakib Shahriar'. Another red box highlights the 'Explore Communities' section, with a red arrow pointing to it from the text 'Sakib Shahriar'. The 'Explore Communities' section lists various programming languages and frameworks, including Java, Python, JavaScript, C++, C#, and PHP. The 'Trending discussions' section lists four topics with their respective response counts.

Hashnode

Ask question

Sakib Shahriar

Explore Communities

Browse and follow communities you care about

Programming Languages

Blockchain

JavaScript

Web Frameworks

Community Sponsors

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CHATKIT

Trending discussions

01 Why do tech startups always advertise that they offer a "fast-paced environment"? 4 responses

02 Is Singleton an Anti-Pattern? 7 responses

03 How should I handle the following disagreement in a code review? 5 responses

04 Is it a good practice to create an interface if only one class will ever implement it? 5 responses

Sakib Shahriar

0 Updates 0 Followers 6 Following

Java

Python

JavaScript

C++

C#

PHP

Hashnode

Ask question

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Ask the community

Featured today

Is Singleton an Anti-Pattern?

A singleton is a class that allows only a single instance of itself to be created and gives access to that created instance. Do you it is an anti-pattern in most of the cases?

Handling manager who is fond of nitpicking and making pedantic comments?

How to implement flow of user authentication using oauth + openID?

How should I handle the following disagreement in a code review?

M and 1 other wrote an answer

Agnishom Chattopadhyay posted in General Programming

What is something fun I can do in my three month summer vacation?

Uprate

Answer (2)

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Why do tech startups always advertise that they offer a "fast-paced environment"?

Is Singleton an Anti-Pattern?

How should I handle the following disagreement in a code review?

Is it a good practice to create an interface if only one class will ever implement it?

Sakib Shahriar

0 0 6

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Ask the community...

Featured today

Is Singleton an Anti-Pattern?

A singleton is a class that allows only a single instance of itself to be created and gives access to that created instance. Do you it is an anti-pattern in most of the cases?

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Sakib Shahriar

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Discussions /

Chris Bao · @ChrisBao

Object.prototype.toString.call() source code or implementation

I came across this method Object.prototype.toString.call() to judge the type of JS object. I have understand its basic usage, but want to be able to understand more at the bottom. So where I can find its implementation?

Uprate

Follow (1)

Ask details

Save

Share

Asked: 13 hours ago

Total views: 15

Tagged in:

JavaScript (7,210)

Trending on Hashnode

Is it a good practice to create an interface if only one class will ever implement it?

Why do tech startups always advertise that they offer a "fast-paced environment"?

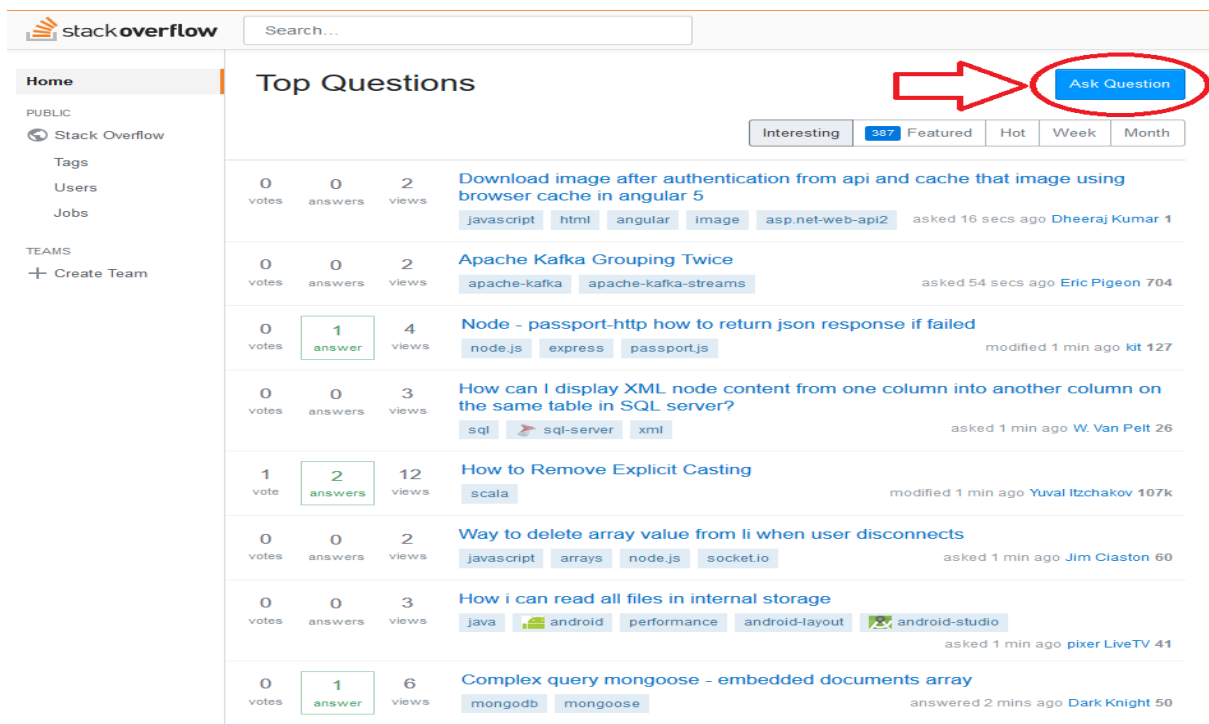
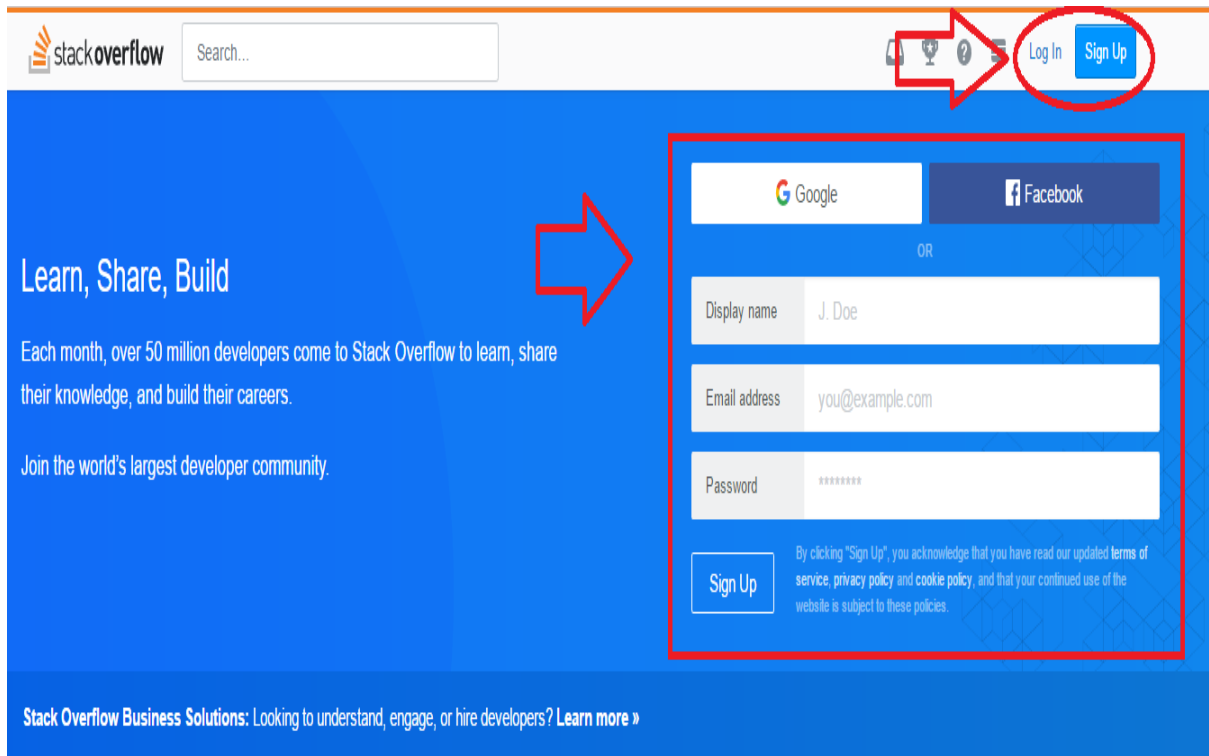
How should I handle a manager who is fond of nitpicking and making pedantic comments?

Sakib Shahriar

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# STACK OVERFLOW



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## Search Results in All

7,866,952 results

relevance
newest
votes
active

9974
votes
41 answers

git git-pull git-fetch

**Q: What is the difference between 'git pull' and 'git fetch'?**

Moderator Note: Given that this question has already had sixty-four answers posted to it, consider whether or not you are contributing anything new before posting another one. **What** are the differences between git pull and git fetch? ...

asked Nov 15 '08 by pupeno

9125
votes
35 answers

json content-type

**Q: What is the correct JSON content type?**

browser support issues varying between them. I know there's a similar question, **What** MIME type if JSON is being returned by a REST API?, but I'd like a slightly more targeted answer. ...

asked Jan 25 '09 by Oli

8162
votes
36 answers

python iterator generator yield coroutine

**Q: What does the "yield" keyword do?**

**What** is the use of the yield keyword in Python? **What** does it do? For example, I'm trying to understand this code: `def _get_child_candidates(self, distance, min_dist, max_dist): if self ... ) candidates.extend(node._get_child_candidates(distance, min_dist, max_dist)) return result` **What** happens when the method `_get_child_candidates` is called? Is a list returned? A single element? Is ...

asked Oct 23 '08 by Alex. S.

7048
votes
25 answers

memory-management language-agnostic stack heap

**Q: What and where are the stack and heap?**

Programming language books explain that value types are created on the stack, and reference types are created on the heap, without explaining **what** these two things are. I haven't read a clear ... explanation of this. I understand **what** a stack is. But, where and **what** are they (physically in a real computer's memory)? To **what** extent are they controlled by the OS or language runtime? **What** is their scope? **What** determines the size of each of them? **What** makes one faster? ...

asked Sep 17 '08 by mattshane

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House Ads Jobs Make Your Next Move 1 MLB SO 20160819

## What is the difference between 'git pull' and 'git fetch'?

9974
votes
1953 answers

git git-pull git-fetch

**Moderator Note:** Given that this question has already had *sixty-four* answers posted to it, consider whether or not you are **contributing anything new** before posting another one.

What are the differences between `git pull` and `git fetch` ?

edited May 2 at 20:50 143k 31 259 395

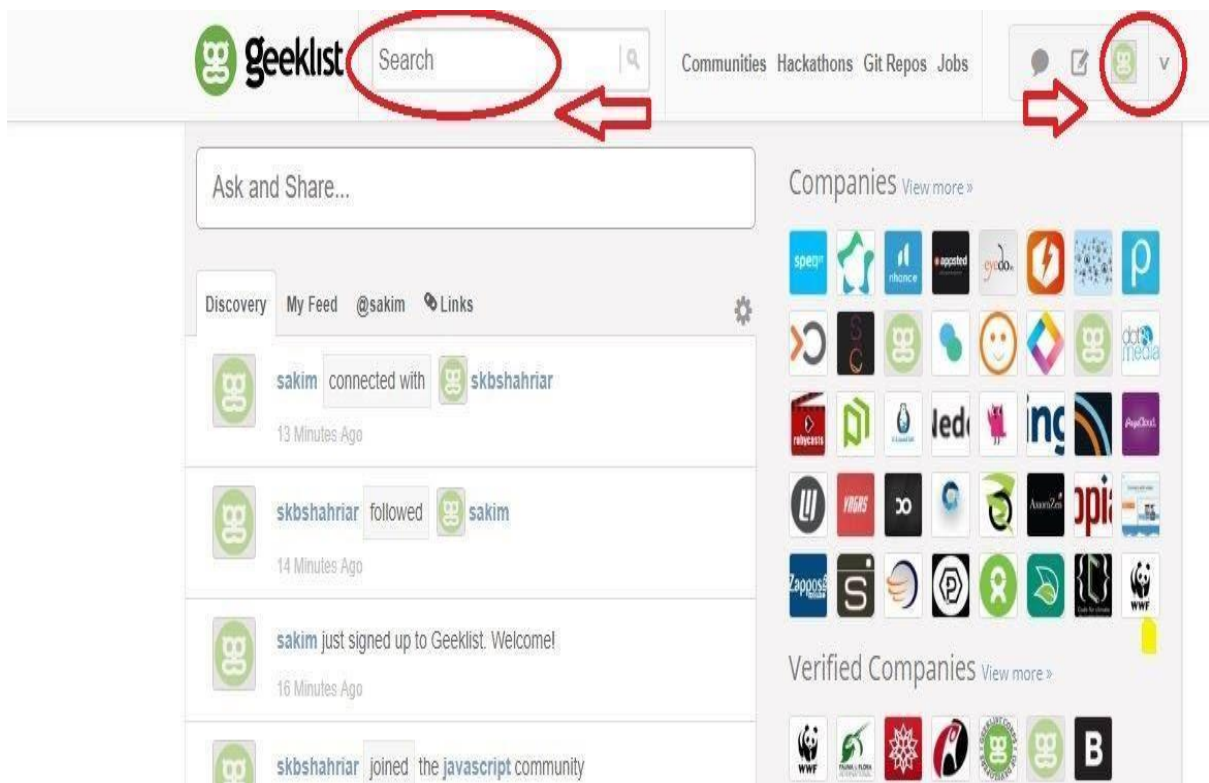
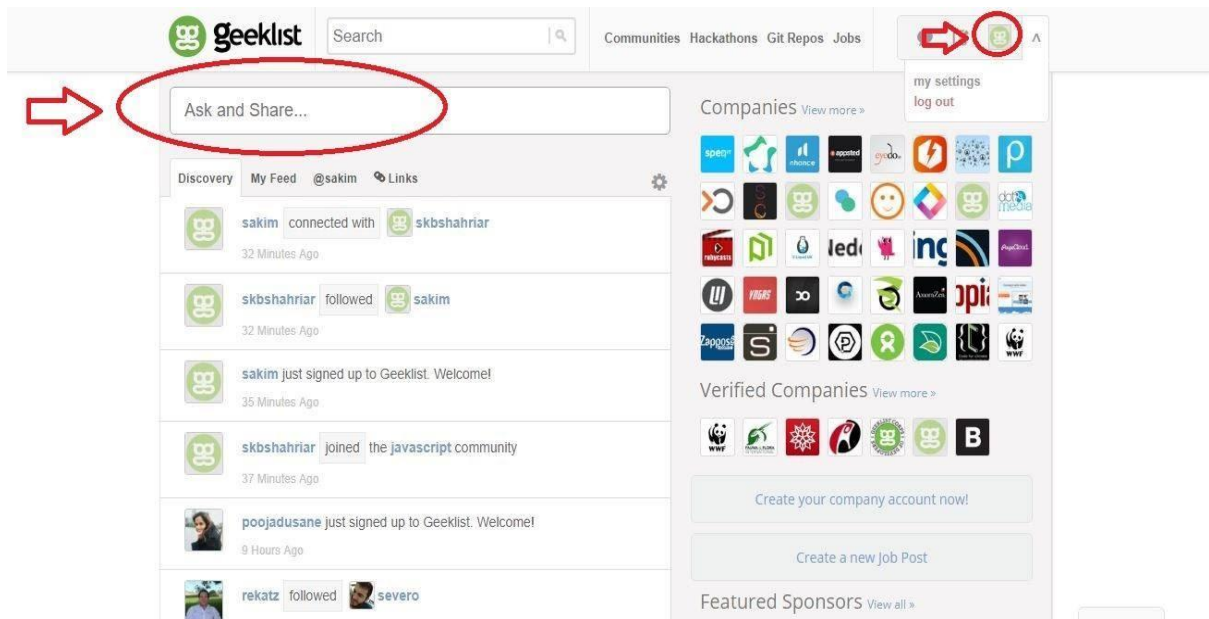
asked Nov 15 '08 at 9:51 98.2k 96 264 407

289 I found this well written article about git fetch and git pull it's worth the reading: [longair.net/blog/2009/04/16/git-fetch-and-merge](http://longair.net/blog/2009/04/16/git-fetch-and-merge) – Marcos Oliveira Sep 16 '10 at 6:57
28 Our alternative approach has become `git fetch; git reset --hard origin/master` as part of our workflow. It blows away local changes, keeps you up to date with master BUT makes sure you don't just pull in new changes on top on current changes and make a mess. We've used it for a while and it basically feels a lot safer in practice. Just be sure to add/commit/stash any work-in-progress first ! – Michael Durrant May 4 '14 at 14:32
15 Make sure you know how to use git stash correctly. If you're asking about 'pull' and 'fetch' then maybe 'stash' will also need explaining... – Henry Heleine Dec 9 '14 at 20:09
24 Lots of folks coming from Mercurial keep using "git pull", thinking it's an equivalent for "hg pull". Which it's not. Git's equivalent of "hg pull" is "git fetch". – Serge Shultz Jun 29 '15 at 10:15
4 git fetch command fetching updated code with branch and also will get newly added branches in your local, git pull command fetch only updated code of current branch only – Kartik Patel Jul 27 '17 at 11:43

show 1 more comment

6

# GEEKLIST





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Communities

Add New Community

All communities Your communities Deploy New Repo and get a free t-shirt!

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Sort By: # of users ^ name last activity

javascript 10065	html5 7487	php 6100
jquery 5594	css3 5042	python 4177
git 3862	node.js 3547	mysql 3514

Support

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Profile Projects and Ideas Activity Message Follow Subscribe

Latest post → hi

Communities

I contribute and I'm a member of javascript and python communities.

Achievement Cards

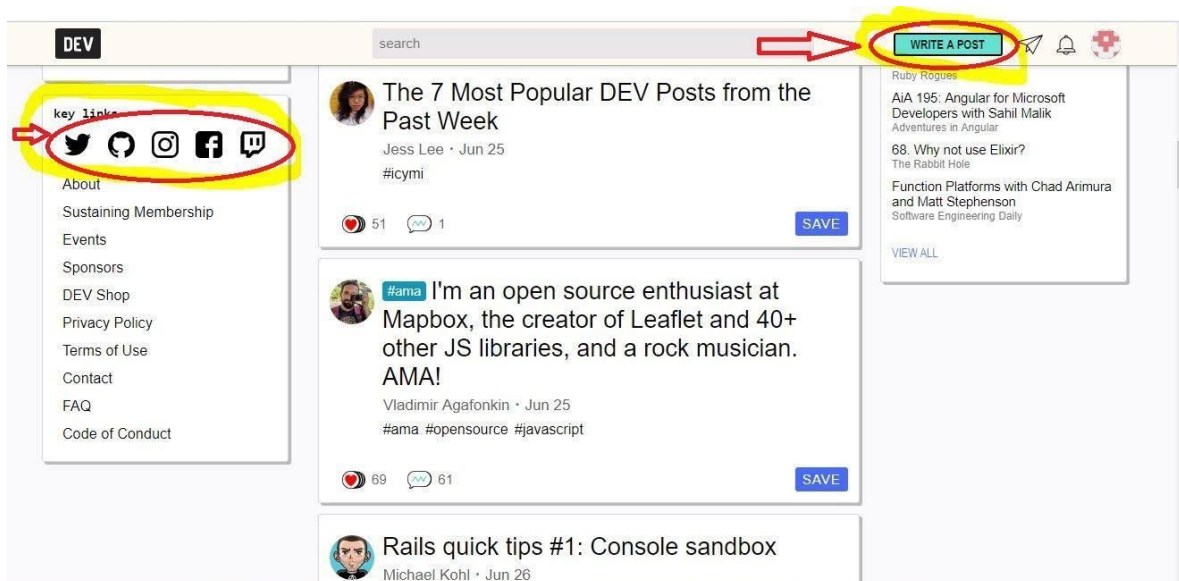
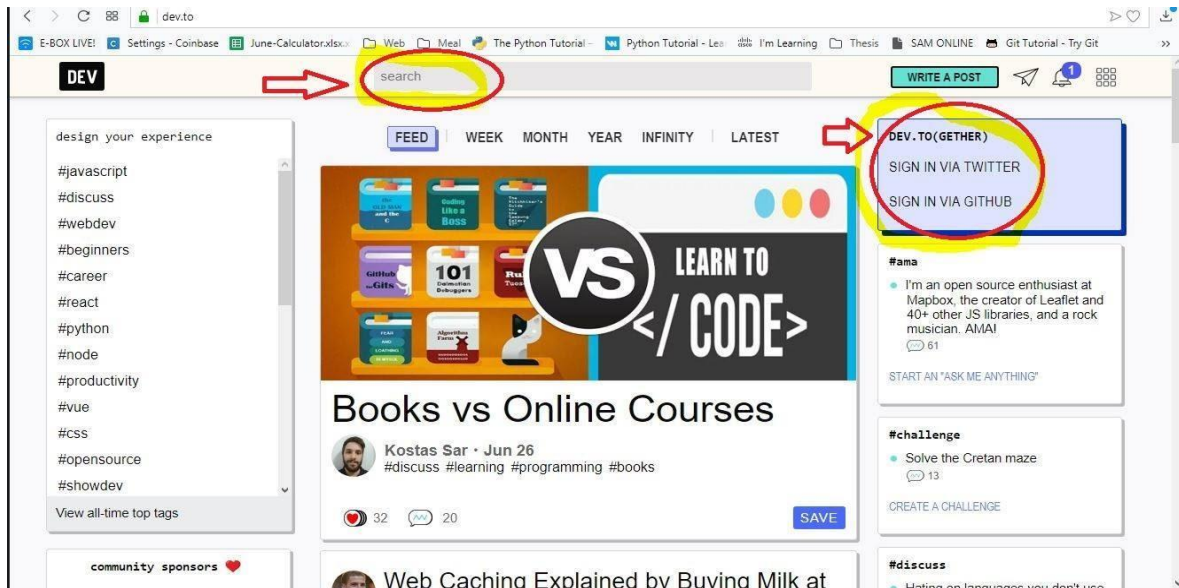
Add achievements for skbshahriar + Card

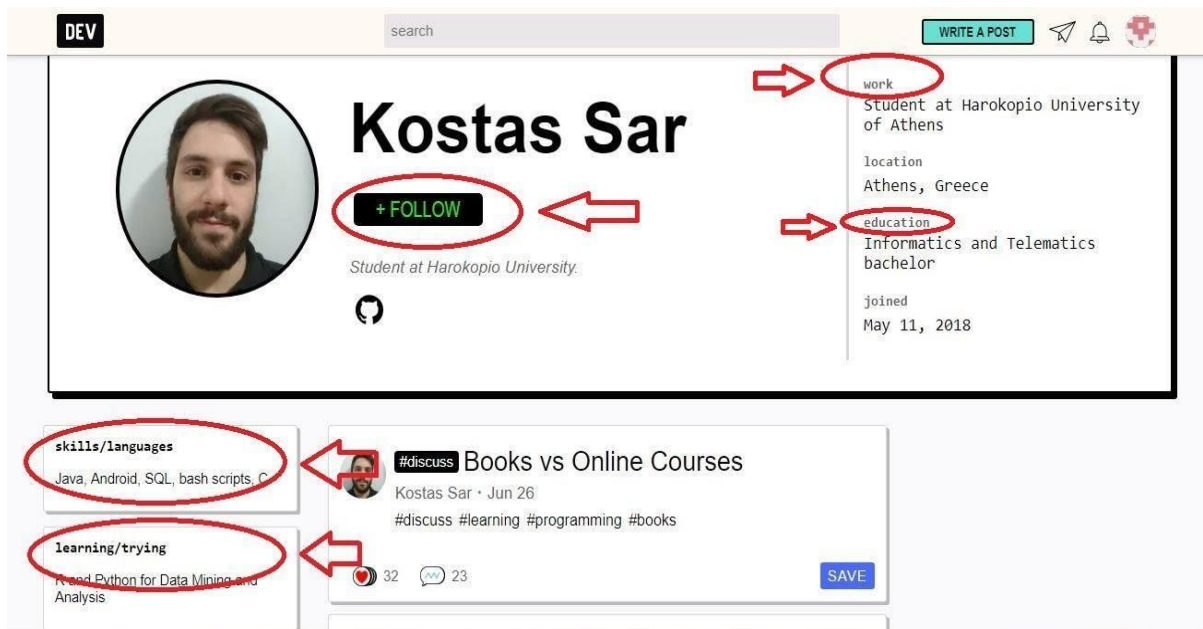
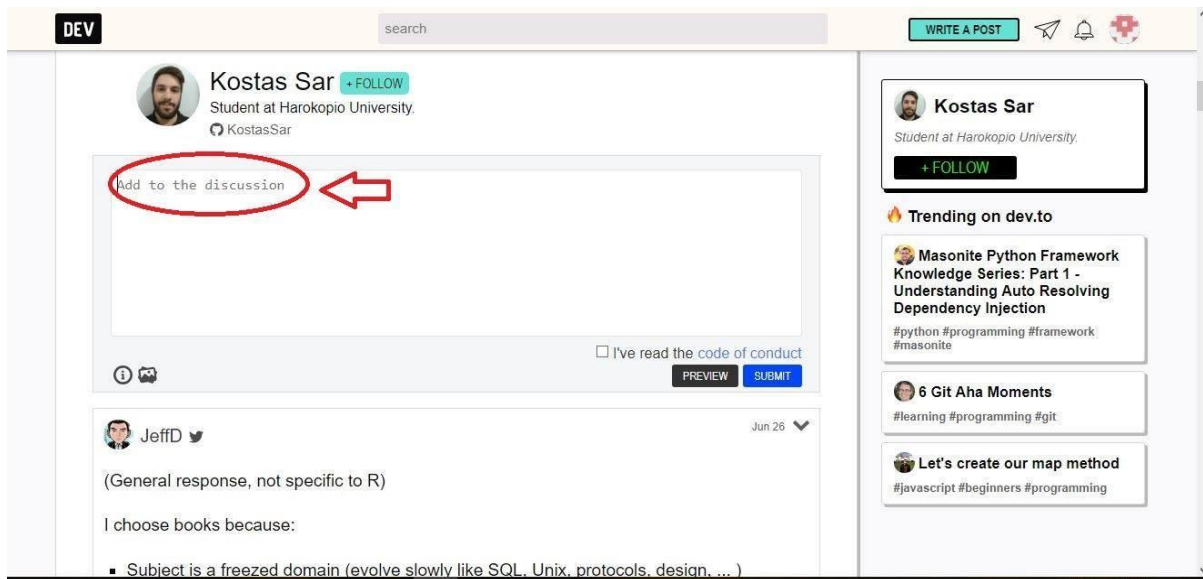
Achievement cards share with fellow developers and tech geeks what you've built during your career. You add info like what you used to build it, who you built it with and links or images to the process and outcome. They become part of your geek work history and you earn GeekCred from the cards, views, ^5's (our way of saying High Five for great work) - you may have done or are working on something awesome or you may be just learning to code. An achievement may be big or small, serious or humorous. Any geek achievement you're proud of will do.

Not sure and need some ideas? Check out some of our popular geeks and their posts here

Support

# DEV.TO


















































## ❖ LINKS OF BENCHMARK PRODUCTS:

- <https://hashnode.com/>
- <https://stackoverflow.com/>
- <https://geekli.st/>
- <https://dev.to/>

## 2. Feature Comparison:

Features	Hashnode	Stack Overflow	Geeklist	dev.to	DevQuery
Login					
Ask/Answer					
Search					
Follow					
ASK/Chat					
Post tag					
Communities					
Bidirectional Voting					
Notification					

---

## Feature List

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### **Feature List:**

- Log in
- Post
- Search
- Follow
- Chat
- Post tag
- Community
- Bidirectional voting
- Notification



## Site Map:



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## Feasibility Study

---

### ❖ SWOT Analysis:

#### ■ Strengths:

- □ Has a good developer team.
- □ Only requires minor investment.
- □ Smaller chance of financial loss.

#### ■ Weakness:

- □ No industry experience of the developer team.
- □ No marketing experiences.
- □ Lack of managerial experience
- □ Lack of funding.

#### ■ Opportunities:

- □ No competitor on the local market.
- □ High demand of the product.

#### ■ Threats:

- □ Better product of this category might come.
- □ Developer team is too small

---

## Cash Flow

---

### CASHFLOW ANALYSIS

#### Estimated Expenses

- Developer Cost:  $5 * 10,000 * 2 \text{ month} = 100,000$
- Domain: 1000
- Website hosting: 3000
- Miscellaneous: 10,000
- Total Initial Investment: 1,14,000

#### Cash Flow Analysis

Year:	0	1	2	3	4
Expenses:	114000	0	0	0	0
Revenue:	0	20000	40000	45000	50000
Cash Flow:	-114000	20000	40000	45000	50000
Cumulative Cash Flow:	-114000	-94000	-54000	-9000	41000

#### Pay Back Period:

$$= \text{Number of Years before full recovery} + \frac{\text{Last uncovered cost}}{\text{Cash flow during full recovery year}} = 2.56 \text{ year}$$



---

## UI Design

---



**Moqup:**



- Posts
- Messages
- Communities
- Saved
- Settings

- About
- Terms & Conditions
- Contact

Ask Here !!!



Chris John

### Java or Python?

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet



Tags #Java #Python

+1 -1 Comments



Jhon Doe

### How can I connect to MySQL in Ruby on Rails?

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet



Tags #Ruby #mysql

+1 -1 Comments

### Communities

Laravel



Java



ASP.NET



Python



Scala



Node.js



[view all](#)

### Tranding Tags

#Python

#Web

#Java

#Linux

#X86

#Laravel

#Ruby

#C++



- Posts
- Messages
- Communities
- Saved
- Settings



## Java

Java is a general-purpose computer-programming language that is concurrent, class-based, object-oriented, and specifically designed to have as few implementation dependencies as possible.

Following

Start a discussion



Chris John

### Problems with JavaFX dialog

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit amet quis



+1



-1

Comments



Jhon Doe

### How can I connect to MySQL in Ruby on Rails?

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit amet quis



+1



-1

Comments



## Communities

Laravel



Java



ASP.NET



Python



Scala



Node.js



[view all](#)

## Tranding Tags

#Python

#Web

#Java

#Linux

X86

#Laravel

#Ruby

#C++

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DEVQUERY

Search...



Jhon Doe



Interests

#Python

# Raspberry Pi

#Angular

#Javascript

# Ruby on Rails



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Email: jhondoe@gmail.com



Github: <https://github.com/JhonDoe>



LinkedIn:



Twitter:



About



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Contact



Chris John

programmer

800

Follower

Joined June 24,  
2016

200

Following

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Message



Chris John



## Java or Python?

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit



Tags #java #python



+1



-1

Comments



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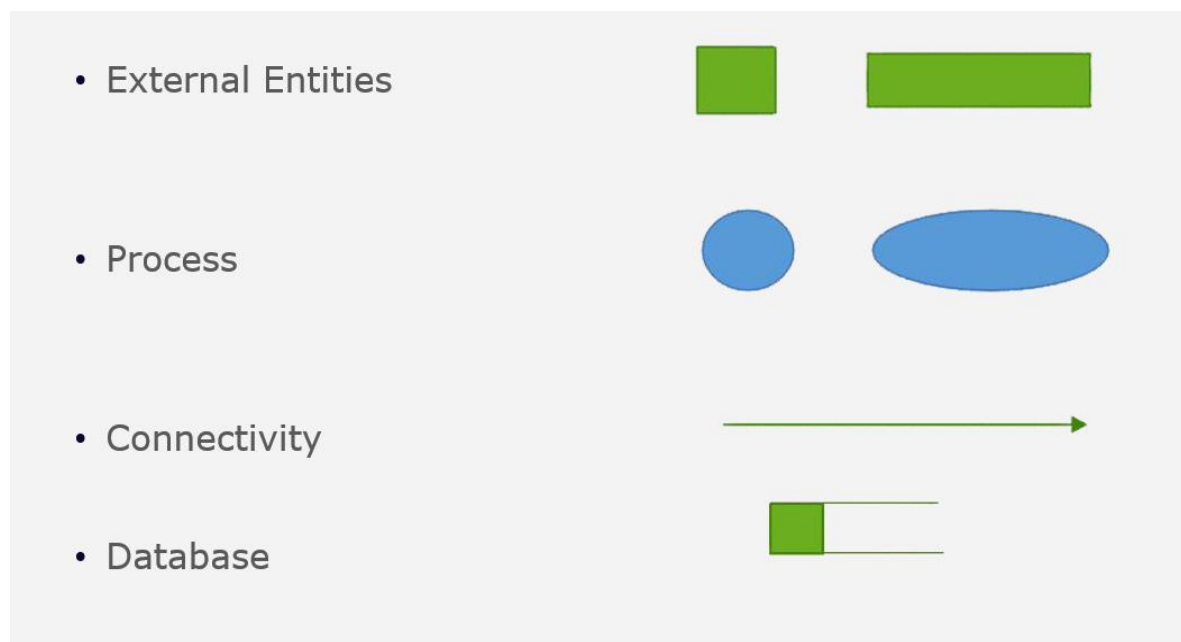
# System Design

---

## 1. Structural Design:

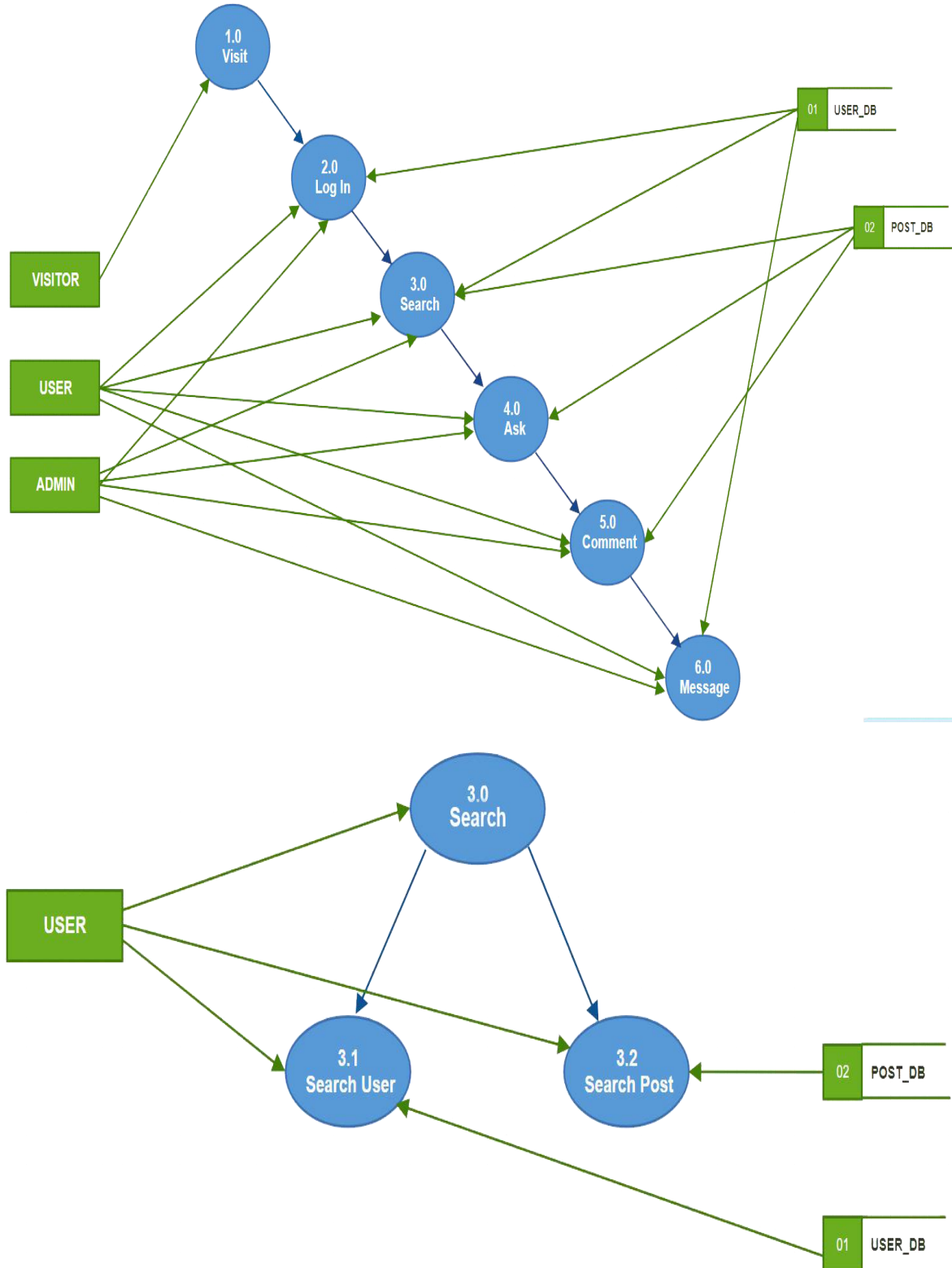
### i. Data Flow Diagram (DFD):

- Rules of Data Flow diagram:
  1. Each process has name and number
  2. Database will be named capital letter
  3. Database will be connected with only the process
  4. Start from top left and ended at right bottom.
  5. Database - database, external entity - database, external entity to external entity connection is not allowed
- Symbol for Data Flow Diagram:





## Diagram:



## 2. Design by UML:

---

### Context Diagram

---

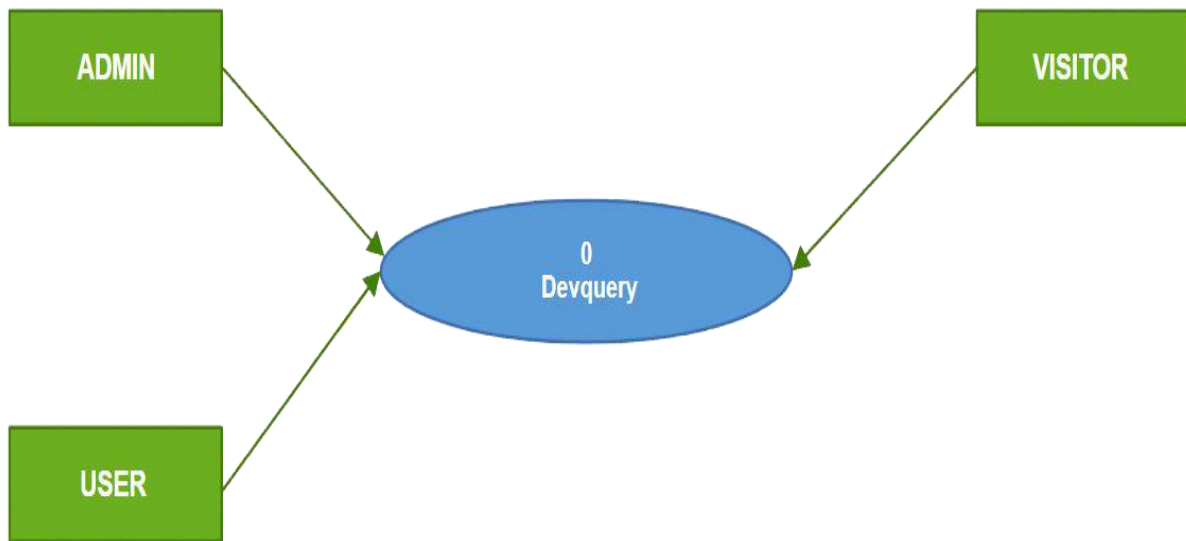
#### ➤ Rules of Context Diagram:

- 0 level Diagram
- start form 0
- External Entities must written in capital letters

#### ➤ Symbols of Context Diagram:



➤ Diagram:



---

**Activity Diagram:**

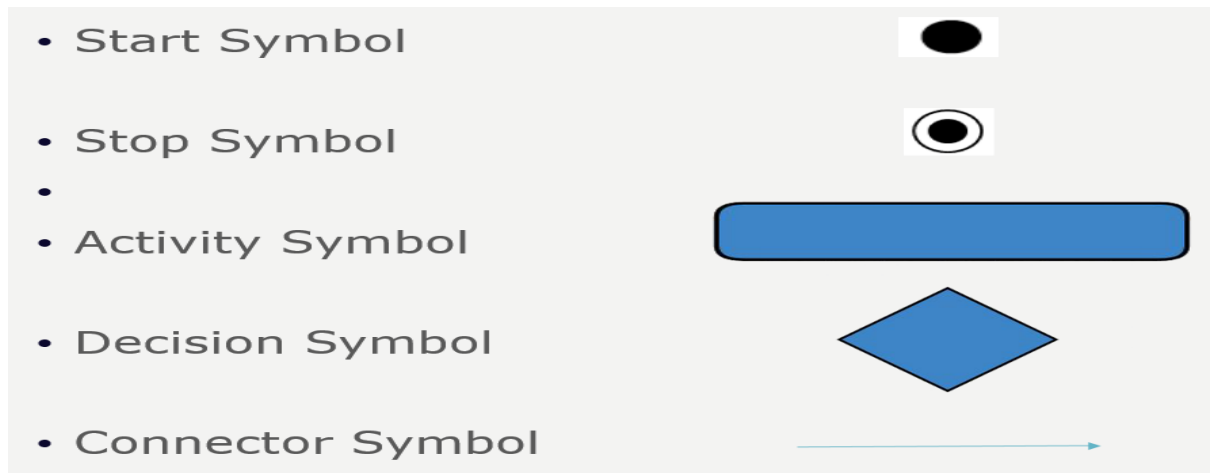
---

➤ Rules of Activity Diagram:

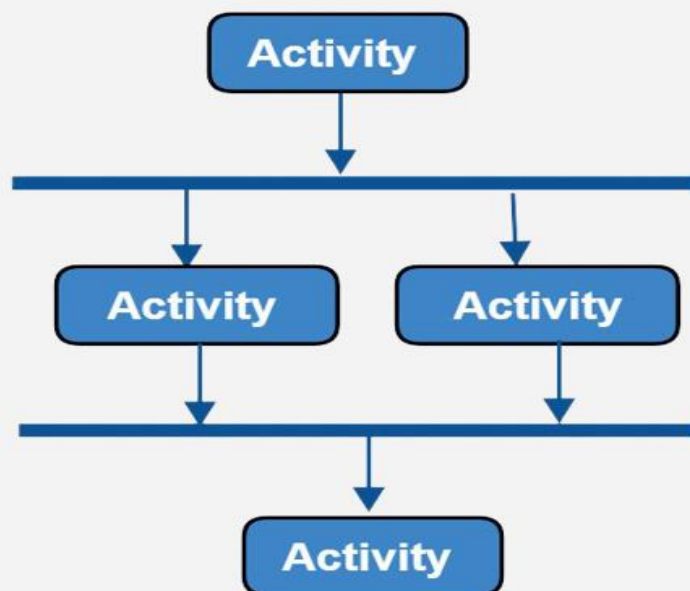
- Starts on top
- Ends on bottom
- Decision Box is used to check condition
- Rectangular box indicates Process or Feature
- Fork represent parallel processes
- Each fork has one input and one output only



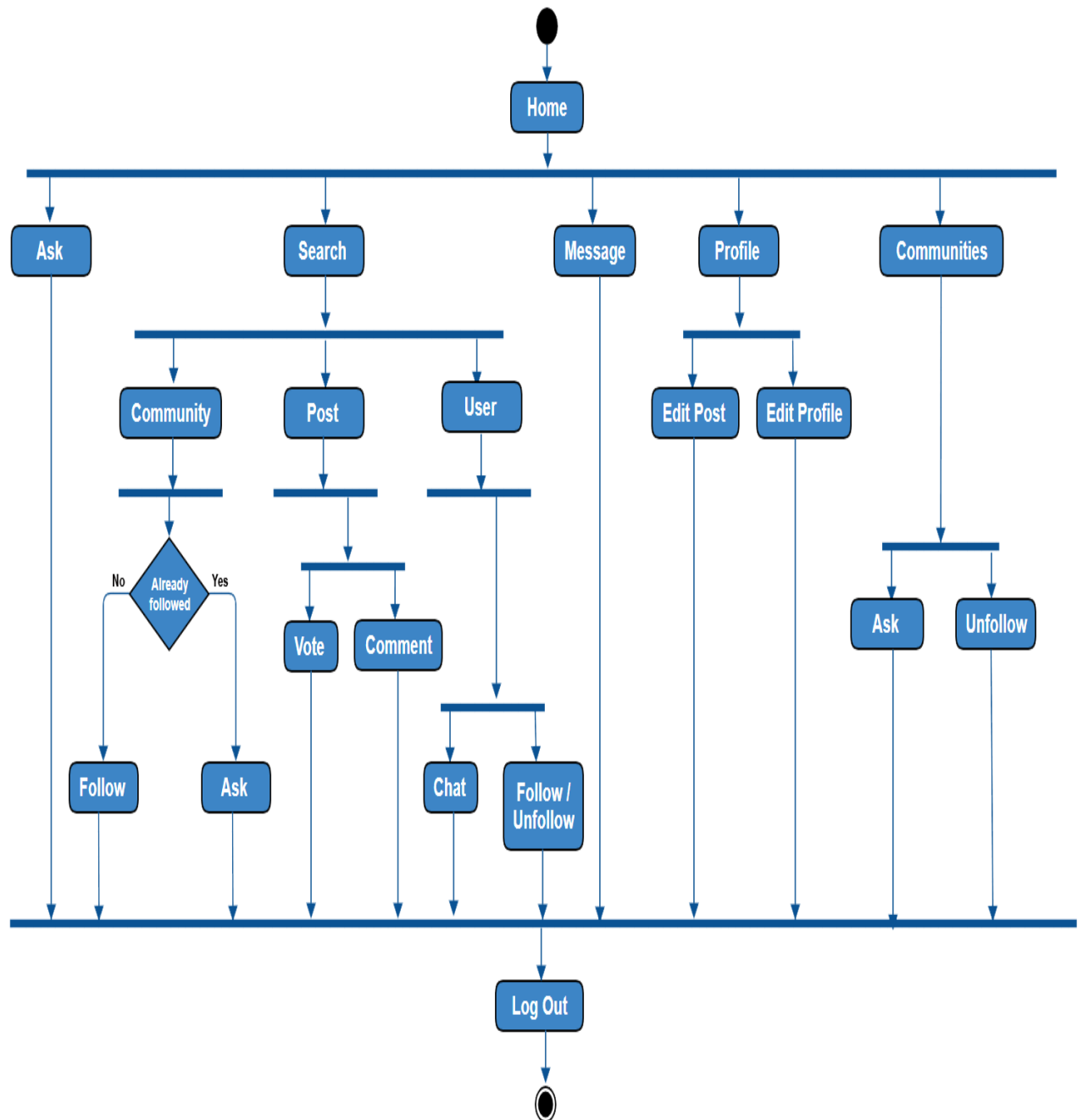
## ➤ Symbols of Activity Diagram:



## Multiple Process



## ➤ Diagram:



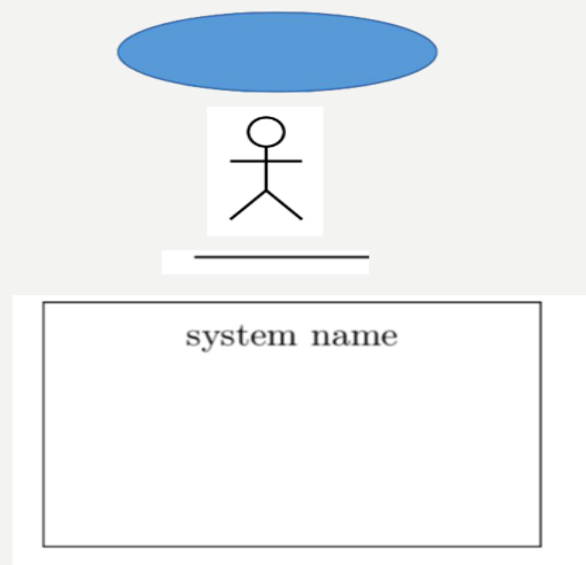
---

## USE CASE DIAGRAM

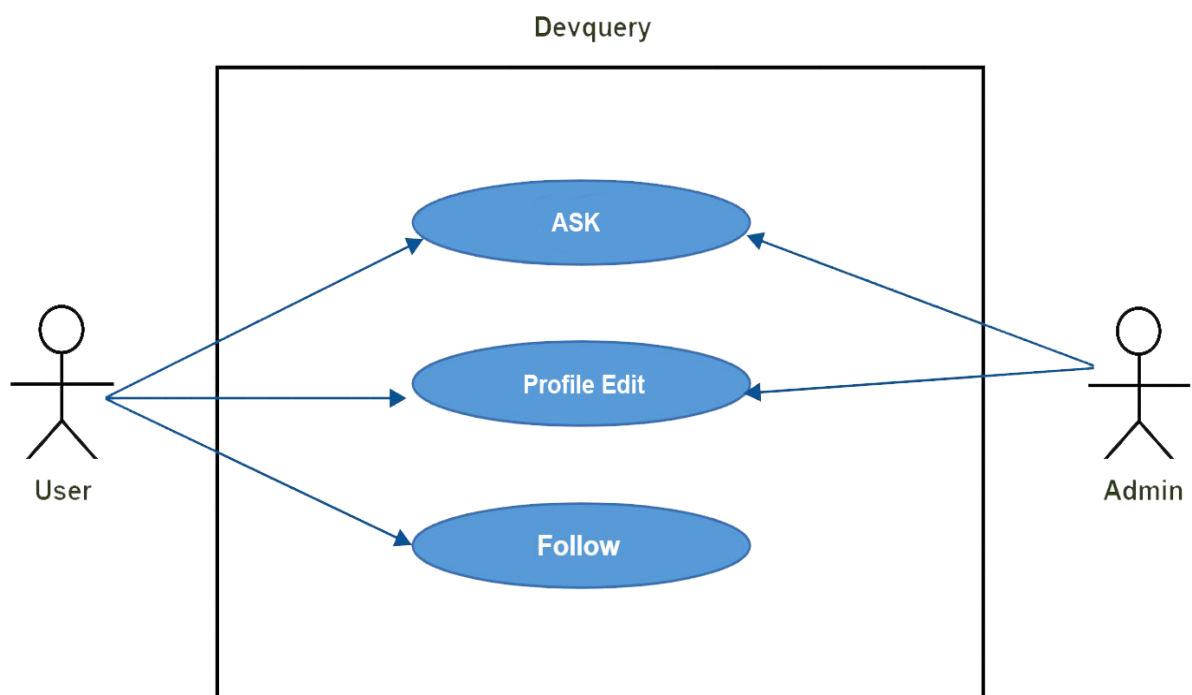
---

### ➤ Rules of Use Case Diagram:

- Use Case
- Actor
- Relationship
- System



### ➤ Diagram:



- Use Case Descriptive Form:
- Use case name and number
  - Primary Actor
  - Stakeholders and Interests
  - Pre-conditions
  - Success Scenario
  - Alternate Scenario
  - Post-conditions

---

## Use case 1: Ask Question

---

- **Primary actor:** User
- **Stakeholders and Interests:**
  - **User:** Ask any question related with developer in Devquery platform
  - **Admin:** Check the Question is Spam or not.
- **Success Scenario:**
  1. Now user can ask question in his timeline.
  2. User can reply to comment in their post.
  3. User can comment in their own post.
  4. User also can like or dislike the question.
  5. User can like or dislike any comment.

- **Alternate Scenario:**

- \*a: any time system can fail:**

- 1. User restart the system, logs in and request recovery of prior state.

- 1(a) Spam may come into comments:**

- 1. User can report for those spam message. Admin will handle this.

- **Pre-conditions:**

- 1. User must have a user id.
  - 2. User must have to log in with his or her user id.

- **Post-conditions:**

- 1. Post will be save in database with his or her user id and password.

---

## Use case 2: Profile Edit

---

- **Primary actor:** User

- **Stakeholders and Interests:**

- **User:**

- User can replace his or her old name, password and email by new name, password and Email.
    - User will able to change profile pic

- **Admin:** Update database and check the user is fraud or not by asking old password.

- **Success Scenario:**

1. User replace old name, password and email by new name, password and email.
2. All process will be happen if the old password is right.

- **Alternate Scenario:**

- **\*a: Any time system can fail:** User restart the system, logs in and request recovery of prior state.
- **2(a): Wrong password:**
  - **Solution:** Retype the correct password

- **Pre-conditions:**

1. User have to visit Devquery's website
2. Must be log in with email and password
3. Have to go to his or her profile
4. Click on edit profile

- **Post-conditions:**

1. User new Name, Email, Password save in database.

2. Now user will be identify by new name, password and email.

---

## Class Diagram

---

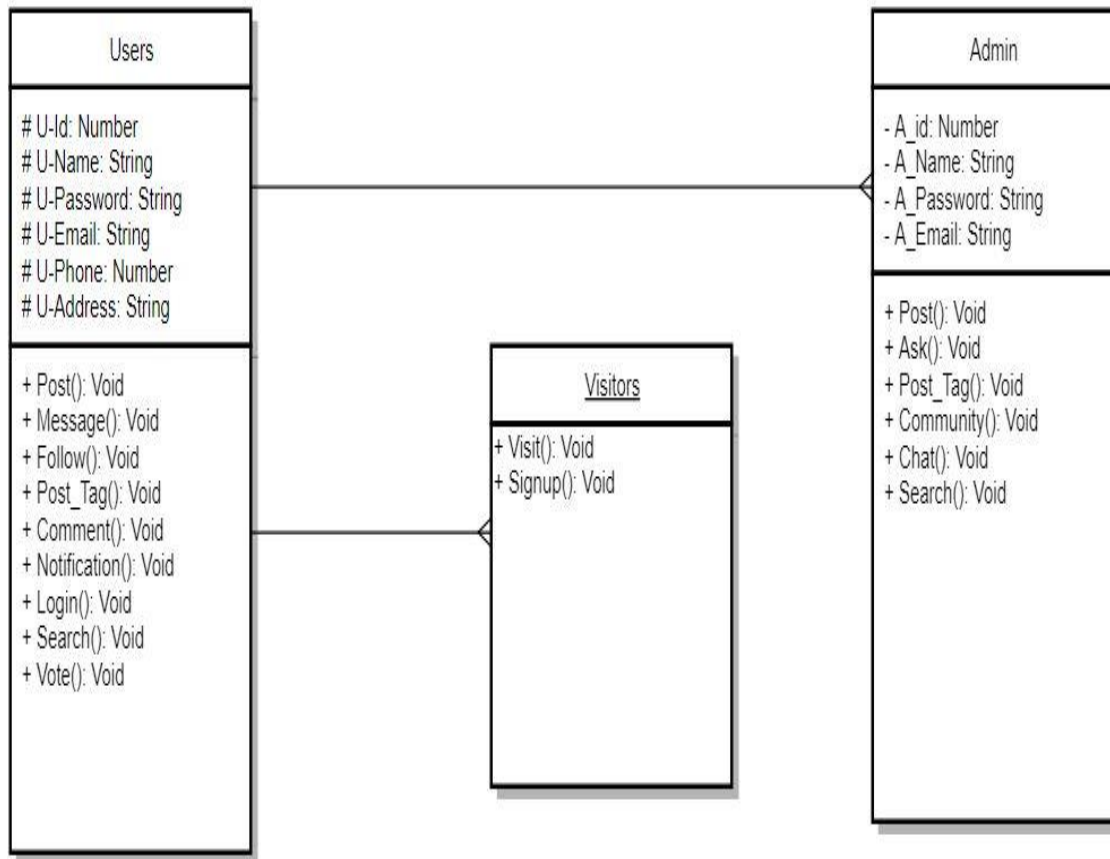
- The class diagram simply describes the attributes and the operations of a class.
- Class name has to be noun. Such as: user, seller, buyer, customer, product, admin etc.
- There could be a relationship in inheritance.
- Relationship between two classes
- Events such as Palenque's description
- Tangible things such as duster which has functions and attributes such as length, width and height.
- Attributes and methods can be,

➤ Private            —

➤ Protected        #

➤ Public            +

➤ Diagram:





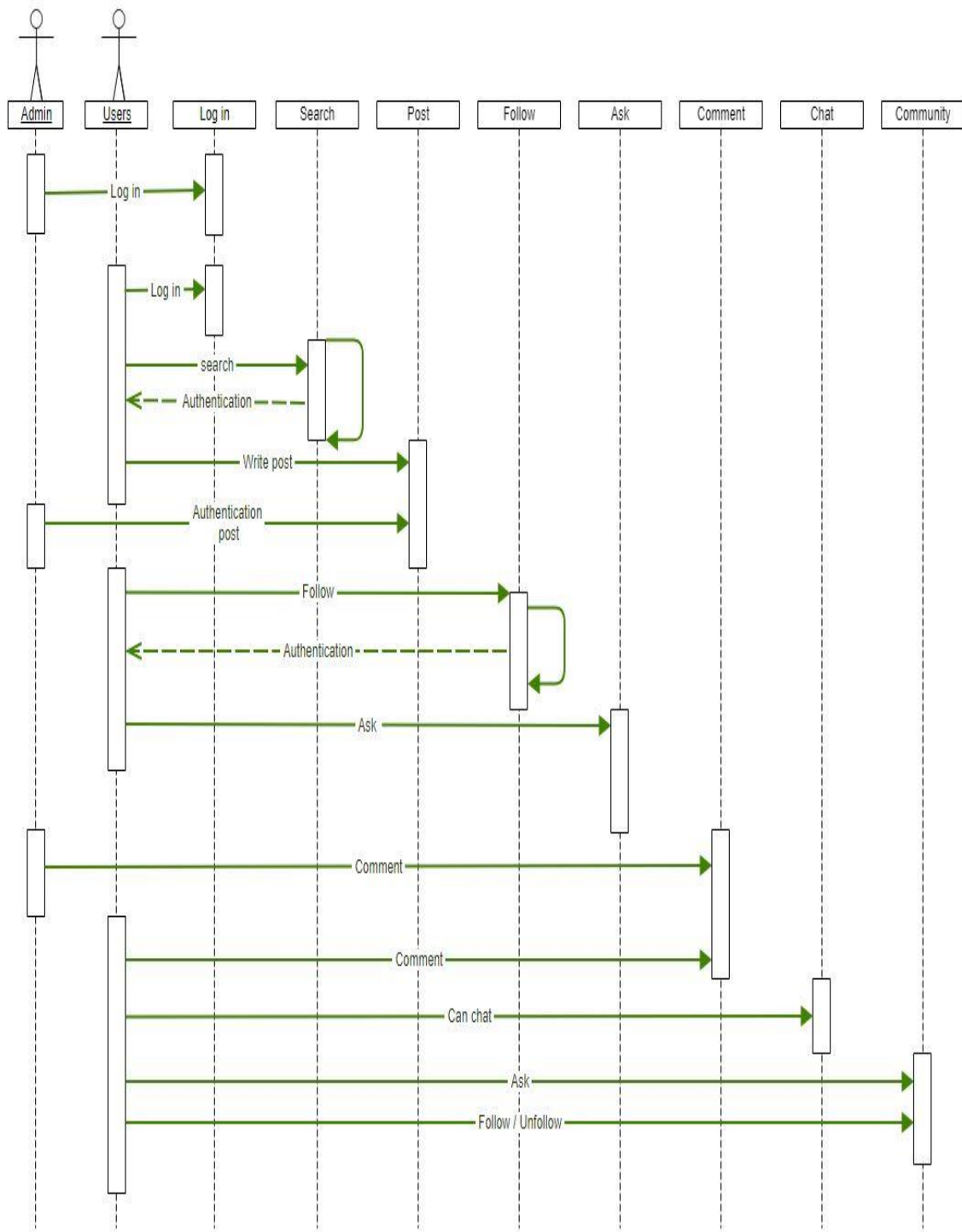
---

## Sequence Diagram

---

- Also known as Interaction Diagram.
- The diagram is used to describe some types of interactions among the different elements in the model.
- The diagram shows,
  - Dynamic behavior of a system.
  - Message flow in the system.
  - Structural organization of the objects.
  - Interaction among objects.

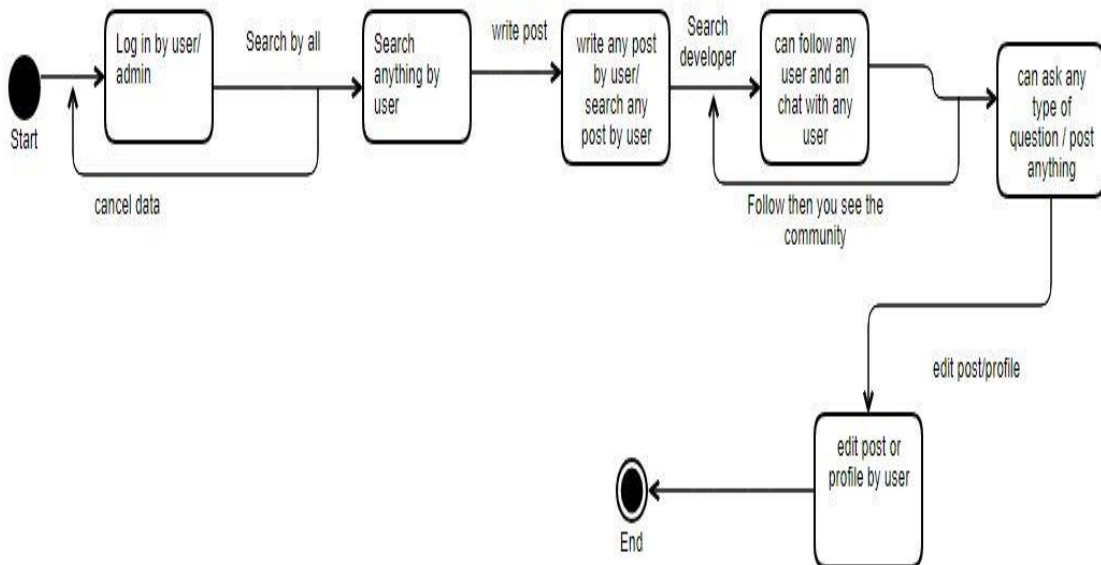
Diagram:



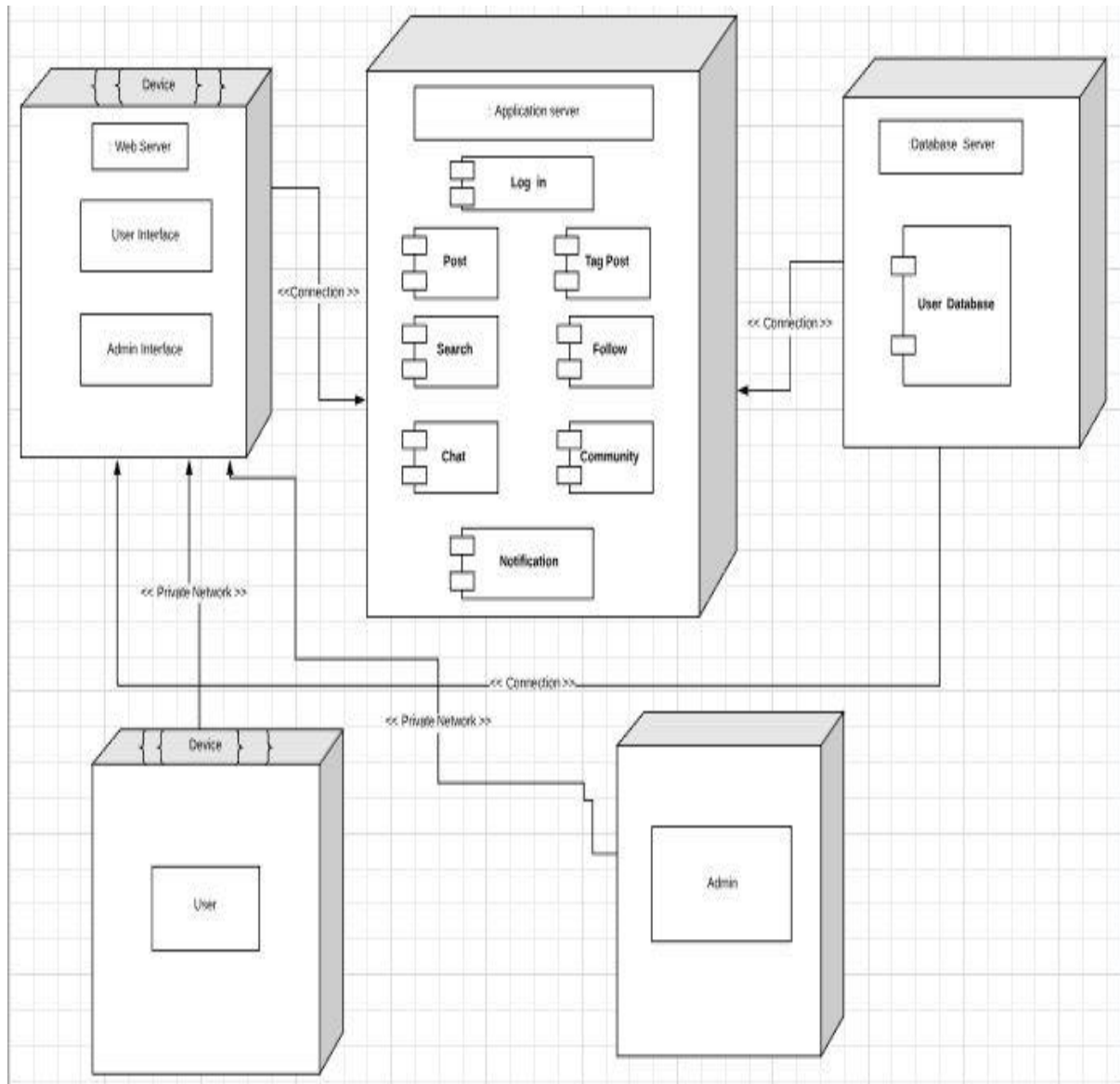
# State Diagram

- A state diagram simply describes the state of a system or machine.
- State diagram describes the flow of control from one state to another state.
- Things to be identified,
  - Objects
  - States
  - Events

➤ Diagram:



# Deployment Diagram



---

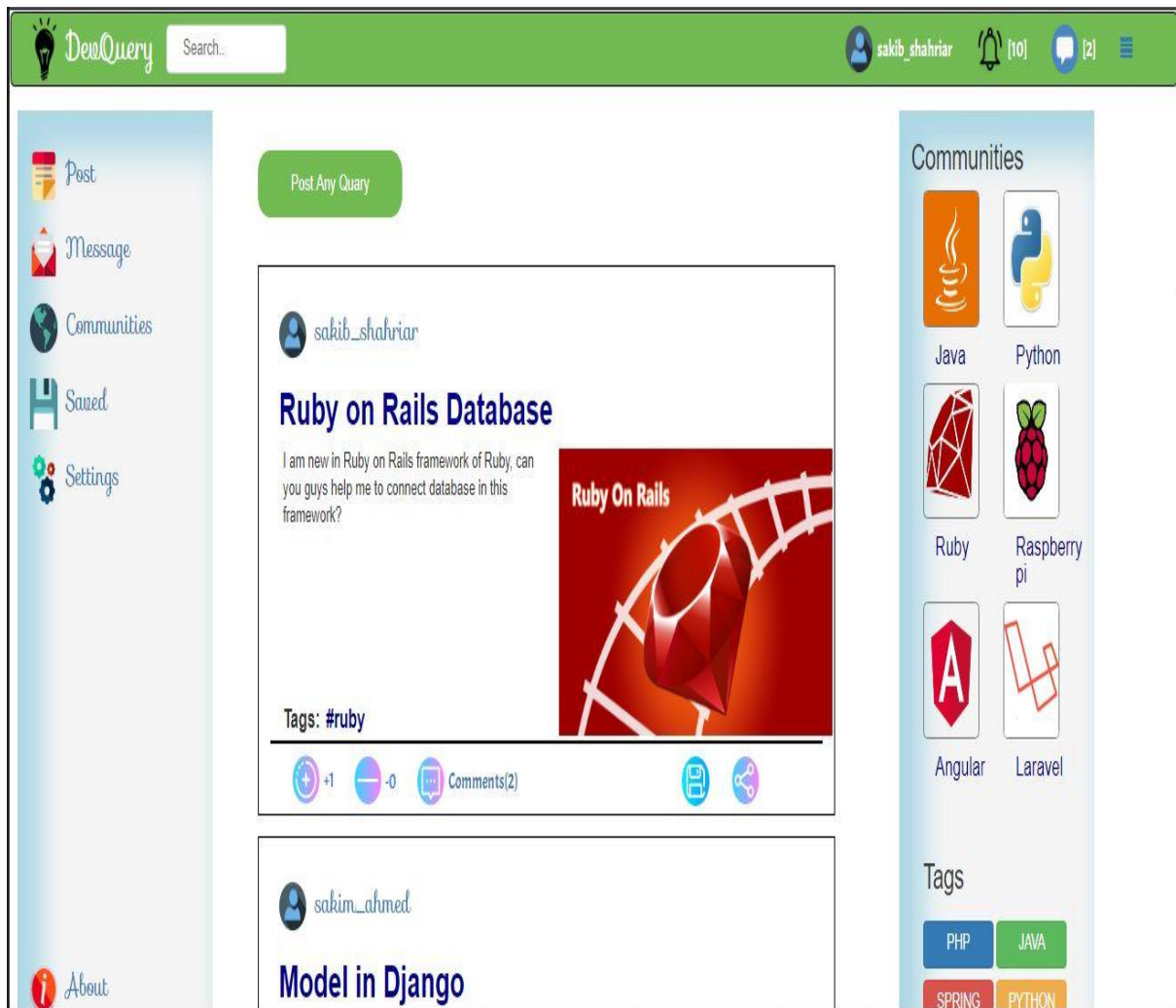
## Implementation

---


- Server side Language: PHP
- Client side Language: JavaScript
- Database: MySQL
- Front End: HTML5,CSS,Bootstrap


## Project Screenshots


# Home





# Post Comment and Vote


 DevQuery


 sakib\_shahriar


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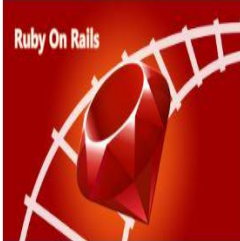
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 sakib\_shahriar


## Ruby on Rails Database





I am new in Ruby on Rails framework of Ruby. can you guys help me to connect database in this framework?

 +1


 -0

 Comments(2)







Comment


 sakim\_ahmed





MySQL is a powerful database management system used for organizing and retrieving data. To install MySQL, open terminal and type in these commands: `sudo apt-get install mysql-server libapache2-mod-auth-mysql` During the installation,








 100

 25


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## My Communities



### Java

This is java community. The main purpose of this community is to help java developers. Java is a programming language and computing platform. There are lots of applications and websites that will not work unless you have Java installed, and more are created every day.


[Following](#)



### Python

This is python community. The main purpose of this community is to help developers. Python can be easy to pick up whether you're a first time programmer or you're experienced with other languages. The following pages are a useful first step to get on your way for Python!


[Follow](#)



### Ruby

This is Ruby community. The main purpose of this community is to help those people interested in this field. In Ruby, everything is an object. Every information and code can be given their properties. Object-oriented programming calls properties by the name instance are known as methods.


[Following](#)



### raspberry Pi

This is Raspberry Pi community. The main purpose of this community is to help C# developers. Our mission is to put the power of computing and digital making into the hands of people all over the world. We do this so that more people are able to harness the power of computing


[Follow](#)



### Angular

This is Angular community. The main purpose of this is to help those people interested in this field. AngularJS is a framework for dynamic web apps. It lets you use HTML as your template language and lets you extend HTML's syntax to express your application's components clearly.

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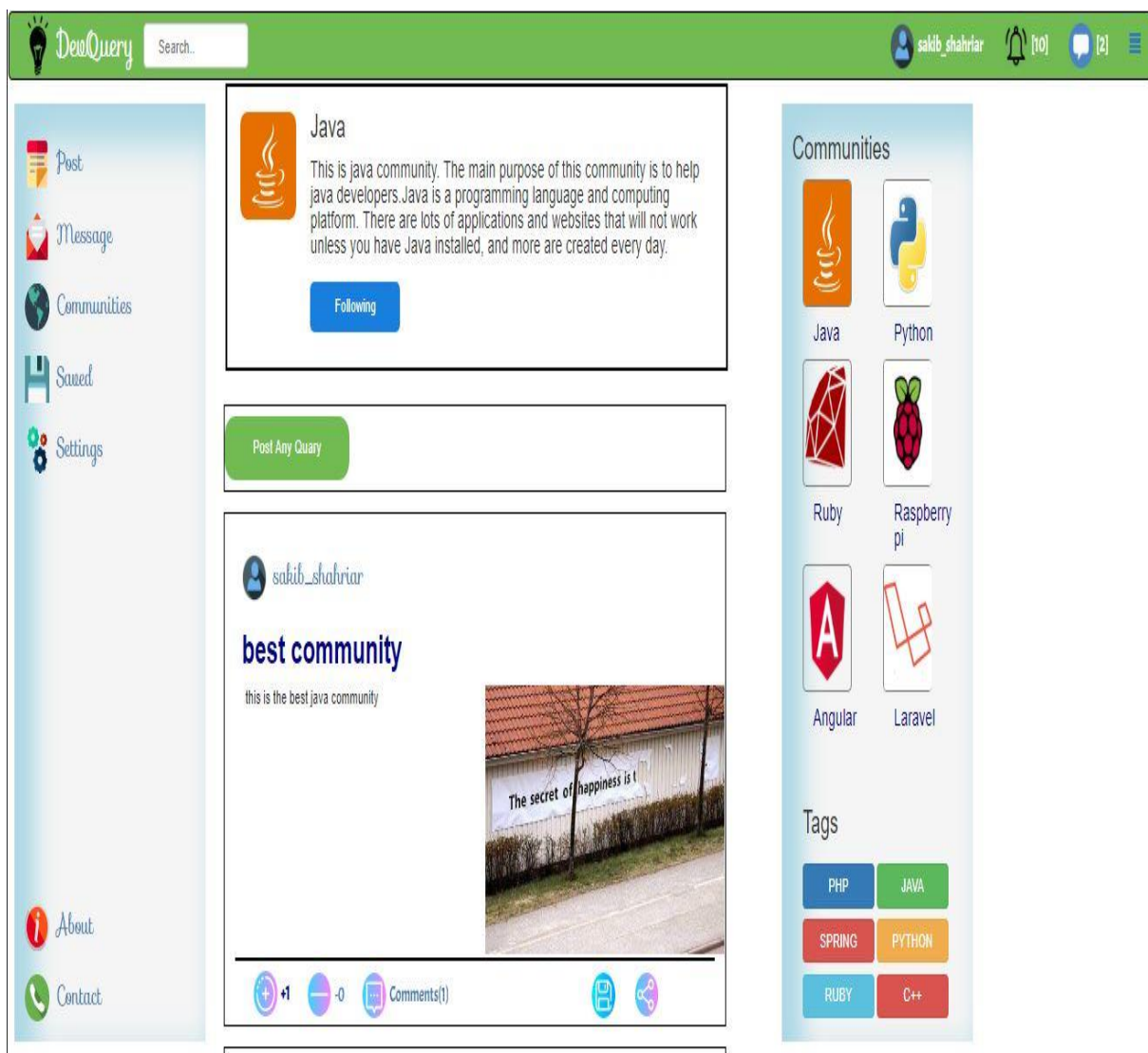
### Laravel

This is Laravel community. The main purpose of this community is to help those people who are interested in this field. Laravel is a open-source PHP web framework, created by Taylor Otwell for the development of web applications following the MVC architectural pattern.


[Following](#)














# Inside Community



# ASK Question

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Interests

#Python#Java#Angular#Flask#Laravel

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LinkedIn  
Twitter  
Facebook

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sakim\_ahmed

Web designer

Joined  
2018-09-17

Following Message

sakim\_ahmed

## Model in Django

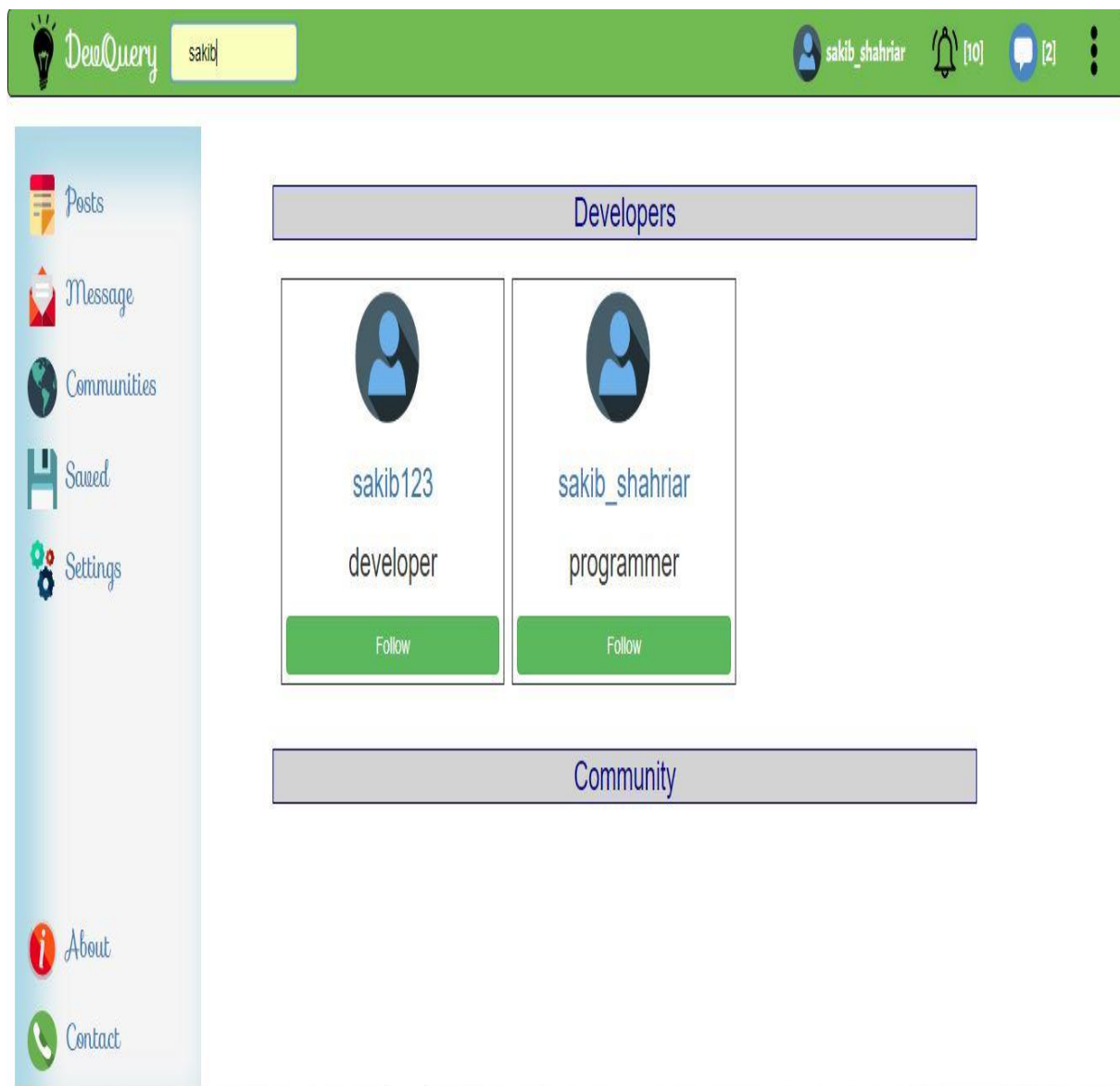
A model is the single, definitive source of information about your data. It contains the essential fields and behaviors of the data you're storing. Generally, each model maps to a single database table.



Model View Controller(MVC) in Django

+1 -1 Comments(0)

# Search



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## Future Plans

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- Recommend developers account using Machine Learning algorithms.
- Implement advanced searching options.
- Better UX design.
- Implement features which were left out due to shortage of time.
- Bug Fix.

---

## Conclusion

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### What did we learn from this project?

- Use of Different designing tools.
- Concept of Product Benchmark.
- How to work as a team.
- How to draw different diagrams.
- How to use a Language effectively and efficiently.
- How to handle a project is systematic way.
- How to manage a project timeline.

# Features

Proposed	Implemented
Login	✓
Ask	✓
Search	✓
Follow	✓
Chat	x
Post Tag	✓
Community	✓
Bidirectional Voting	✓
Notification	x

---

## Contribution

---

### **Sakib Shahriar Khan**

- Development
- Mockup
- Benchmark

### **A S M Morshedur Rahman**

- Front End
- Mockup
- Benchmark

### **Shakim Ahamed**

- Front End
- Mockup
- Benchmark



## **Miftahul Jannat**

- Report
- Diagram
- Cash flow and SWOT analysis

## **Fariha Hossain**

- Database design
- Diagram
- Presentation