SWE573 FINAL REPORT

INFO-GATHERER

03.01.2022

SWE573
Turgut Cem Yılmaztürk

INFO GATHERER

Git repository : https://github.com/turgutcem/swe573
Git tag version : v0.9 , https://github.com/turgutcem/swe573/releases/tag/v0.9
Deployment URL : http://3.67.198.3:8081/

I declare that: - I - Turgut Cem Yılmaztürk - am a student in the Software Engineering MS program at Bogazici University and am registered for Swe573 course during the 2022 Fall semester. - All the material that I am submitting related to my project (including but not limited to the project repository, the final project report, and supplementary documents) have been exclusively prepared by myself. - I have prepared this material individually without the assistance of anyone else with the exception of permitted peer assistance which I have explicitly disclosed in this report.

Turgut Cem Yılmaztürk

User Credentials to Test the Application : Either create a user or use the belowed mentioned users,all credentials other than email can be changed later :

suzan.uskudarli@boun.edu.tr
SuzanUskudarli!!1234

turgutcemyilmazturk@gmail.com
Strongpass12!!

deneme@deneme.com
123456

0.TABLE OF CONTENTS:

1.OVERVIEW:

Info-Gatherer - our product - is a social media website where users bring information , turn them into a content , tag them so they can be found ,share them and interact with other users within the scope of the contents. The reasons that such an idea was brought into life can be summarized as follows :

1-There is no platform where users can gather information from other resources , then group and share them .
2-The information in social media has no steady-state; it flows and it can be difficult to find them . The product also serves as a database for them .
3-The user assigned labels/tags/hashtags are all around the social media ; yet there isn't any composite platform where you can find them all together . Our product is expected to solve this issue .

The product developped through the semester had a purpose to meet above mentioned goals . In this document , all the software development lifecycle phases , achievements and failures can be observed .

2.SOFTWARE REQUIREMENT SPECIFICATIONS:

2.1 Introduction

2.1.1 Purpose

The purpose of this document is to present a detailed description of the Information-Gatherer social media web application , as part of SWE573 coursework . It will describe the purpose and characteristics of the system, what it does, the limitations under which it must function, and how the system will respond to outside stimuli.

2.1.2 Scope

This software is a social media website for university professors and graduate students in which they can collect,share and search for the information. More specifically , this software should satisfy 3 main goals :

1-It should function as a social media web site where users can view and share contents, interact with other users through these contents , and manage the interaction by allowing/not allowing other users to reach their content .

2-The content mentioned above is a form of information gathered from other social media sources in the form of URL , but exposed as our product's own format .

3-The contents collected from other sources should be grouped in a meaningful,structured way, in order to help those who search for a particular content, or recommend contents for those who are browsing.

Briefly , our product is a social media website where users bring information , turn them into a content , tag them so they can be found ,share them and interact with other users within the scope of the contents.

Our stakeholders want this software to solve the problems ordered below:

1-There is no platform where users can gather information from other resources , then group and share them .

2-The information in social media has no steady-state; it flows and it can be difficult to find them . The product also serves as a database for them .

3-The user assigned labels/tags/hashtags are all around the social media ; yet there isn't any composite platform where you can find them all together . Our product will help to solve this issue .

2.1.3 Glossary

Term	**Definition**
User	Those who registers to and uses our social media application.
GİBİ	The content shared by users called gibi , an acronym for "**g**ood **i**dea **b**ad **i**dea" or "**g**athered **i**nformation **b**y **i**nformant" . Choice of explanation for acronmy's meaning is a matter of taste, which we leave to our stakeholder.
Topic	Each GİBİ is labeled with a topic related to it's content.
Timeline	It is the home page where information flows.
Notification	Important messages that are delivered to user by our software.

2.2 Functional Requirements

2.2.1 Registration and Login

-The system shall allow newcomer to register with email and password.

-The system shall send a verification email to newcoming user.

-The system shall allow user to login with email and password.

-The system shall send an email whenever user forgets his/her password, so user can re-login.

2.2.2 User and Profile Functionality

-The system shall allow each user to have it's own profile page.

-The system shall allow users to modify their own credentials.

-The system shall allow users to send a follow/friendship request to other users in order to interact.

-The system shall allow users to respond a follow/friendship request.

-The system shall allow users to share content - which we call GİBİ and describe it's nature in the next part.

-The system shall notify users with notifications when one of the following happened:1.Another user send a follow request 2.Another user comments on his/her GİBİ

2.2.3 Content Functionality : GİBİ

-GİBİ is the tweet of twitter , post of facebook etc. It is what is shared .

-The system shall allow users to share GİBİ. Each GİBİ constitues of 5 parts :

-URL part is where the resource of information is shown.

-Comment part is where user shares his/her own views about the information.

-Visibility Configuration part is where user configures who can view his/her posts.Three options are available:

1. Public means GİBİs can be seen by anyone.
2. Default means GİBİs can be seen only by followers.
3. Private means GİBİs can not be seen other than user him/herself.

-Preview part is the exposed information once it is shared by user.

-Topic part what this GİBİ is about and where it will be grouped under.

-GİBİs will be shown both on timeline , on profile page and on topic pages based on user defined visibility configuration.

-The system shall allow related users(those who) to comment on GİBİs.

-The system shall group GİBİs with the same topics under topic pages.

-The system shall let related users upvote or downvote a GİBİ.

2.2.4 Search Functionality

-The system shall allow users to search for other users , topics and posts that are visible to them.

-The system shall allow users to specify what exactly they search with user search , topic search and GİBİ search options.

-The system shall allow users to do generic search without specifying the type(user,topic etc) they are searching.

-The system shall allow users to specify date interval if they are searching for GİBİs.

2.2.5 Recommendation and Browse Functionality

-The system shall suggest users to follow.

-The system shall suggest topics to follow.

-The recommendations mentioned above should be shown on timeline.

-Users shall be able to browse topic to topic , user to user that are shown on timeline.

2.3 Non-functional Requirements

2.3.1 System Requirements

-The system shall be a web application.

-The system shall use PostgreSQL as database.

-The system shall be developped with Java 8 and Spring Framework.

-The system shall be deployed on AWS.

2.3.2 Performance

- The system shall support upto 500 users per hour and must provide 6 second or less response time.

2.3.3 Security

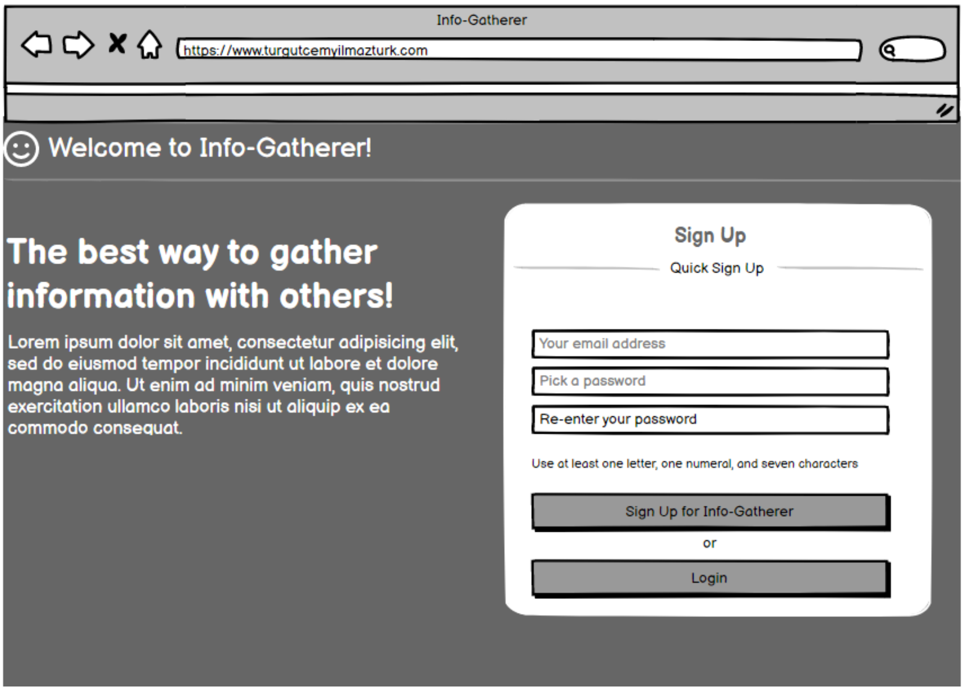
-The system shall be secured from malicious attacks such as CSRF,CORS.

-The system shall encrypt passwords in database.

3.SOFTWARE DESIGN:

3.1 Mockups

Signup Page

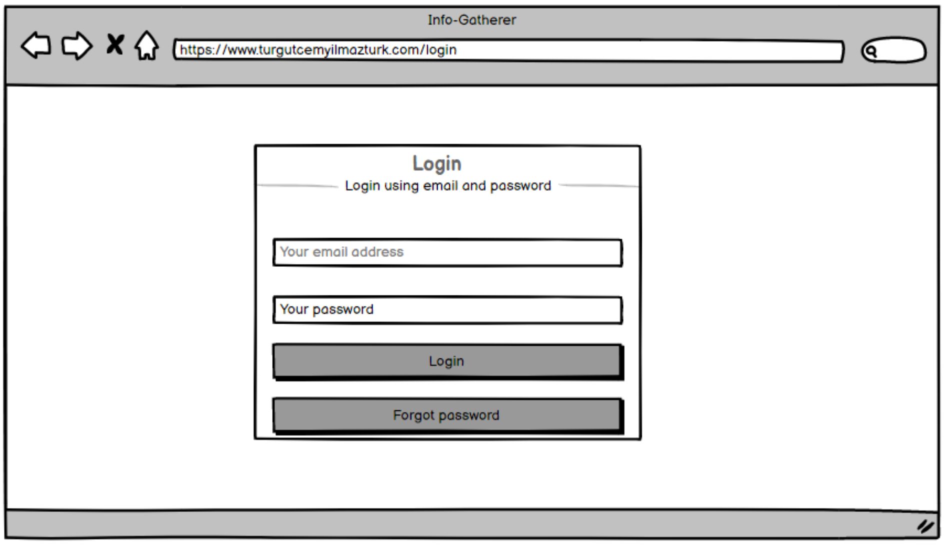


The best way to gather information with others!

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

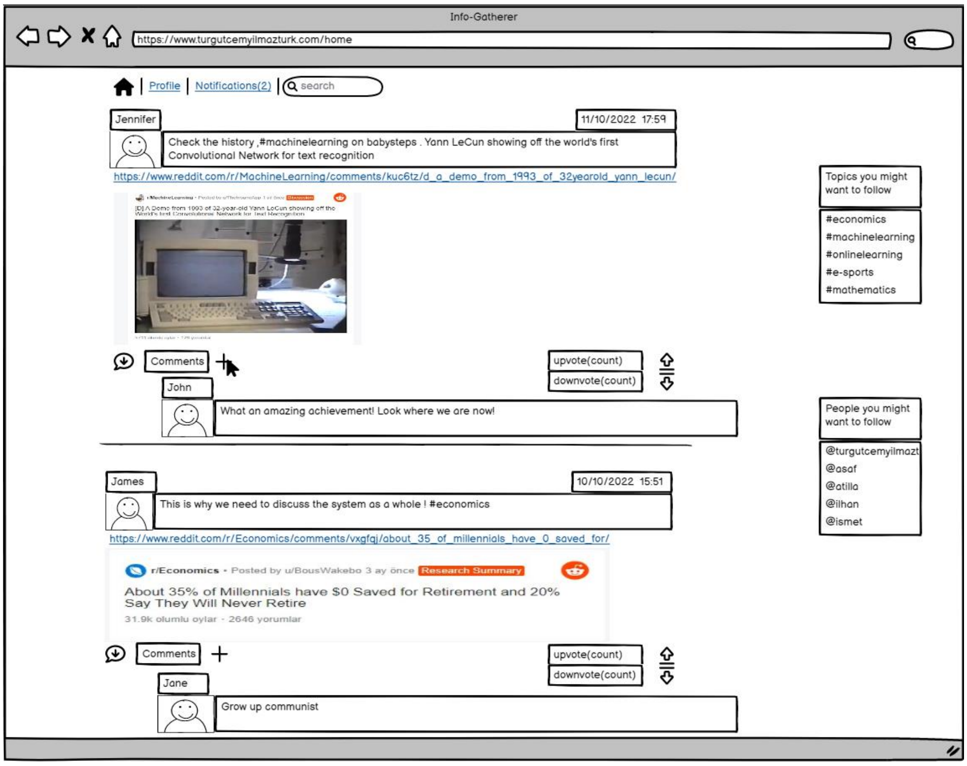
Use at least one letter, one numeral, and seven characters

Login Page



Info-Gatherer
https://www.turgutcemyilmazturk.com/login
Login
Login using email and password
Your email address
Your password
Login
Forgot password

Timeline



Jennifer 11/10/2022 17:59

Check the history ,#machinelearning on babysteps . Yann LeCun showing off the world's first Convolutional Network for text recognition

https://www.reddit.com/r/MachineLearning/comments/kuc6tz/d_a_demo_from_1993_of_32yearold_yann_lecun/

[D] A Demo from 1993 of 32-year-old Yann LeCun showing off the World's first Convolutional Network for Text Recognition

John

What an amazing achievement! Look where we are now!

James 10/10/2022 15:51

This is why we need to discuss the system as a whole ! #economics

https://www.reddit.com/r/Economics/comments/vxgfqj/about_35_of_millennials_have_0_saved_for/

r/Economics • Posted by u/BousWakebo 3 ay önce Research Summary

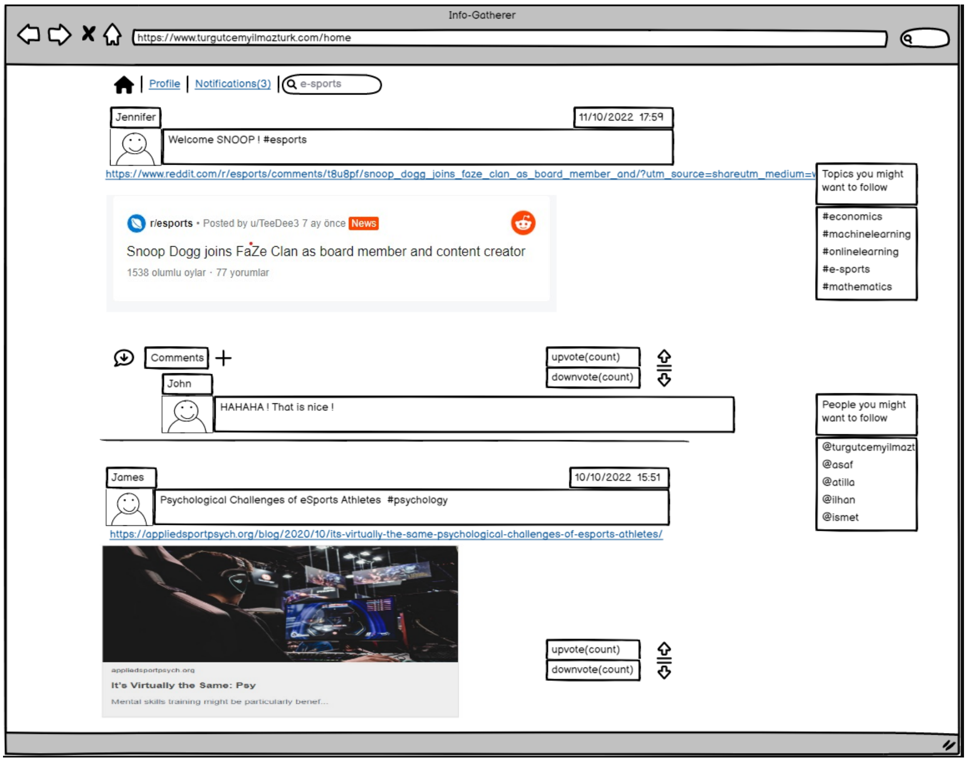
About 35% of Millennials have $0 Saved for Retirement and 20% Say They Will Never Retire

31.9k olumlu oylar · 2646 yorumlar

Jane

Grow up communist

Esports is written to searchbar and searched-posts under esports topic and comments include esports with different topic are both shown.



Info-Gatherer
https://www.turgutcemyilmazturk.com/home
Profile | Notifications(3) | e-sports

Jennifer 11/10/2022 17:59

Welcome SNOOP ! #esports

https://www.reddit.com/r/esports/comments/t8u8pf/snoop_dogg_joins_faze_clan_as_board_member_and/?utm_source=shareutm_medium=w

r/esports • Posted by u/TeeDee3 7 ay önce News

Snoop Dogg joins FaZe Clan as board member and content creator

1538 olumlu oylar · 77 yorumlar

Comments
upvote(count)
downvote(count)

John

HAHAHA ! That is nice !

James 10/10/2022 15:51

Psychological Challenges of eSports Athletes #psychology

https://appliedsportpsych.org/blog/2020/10/its-virtually-the-same-psychological-challenges-of-esports-athletes/

appliedsportpsych.org

It's Virtually the Same: Psy

Mental skills training might be particularly benef...

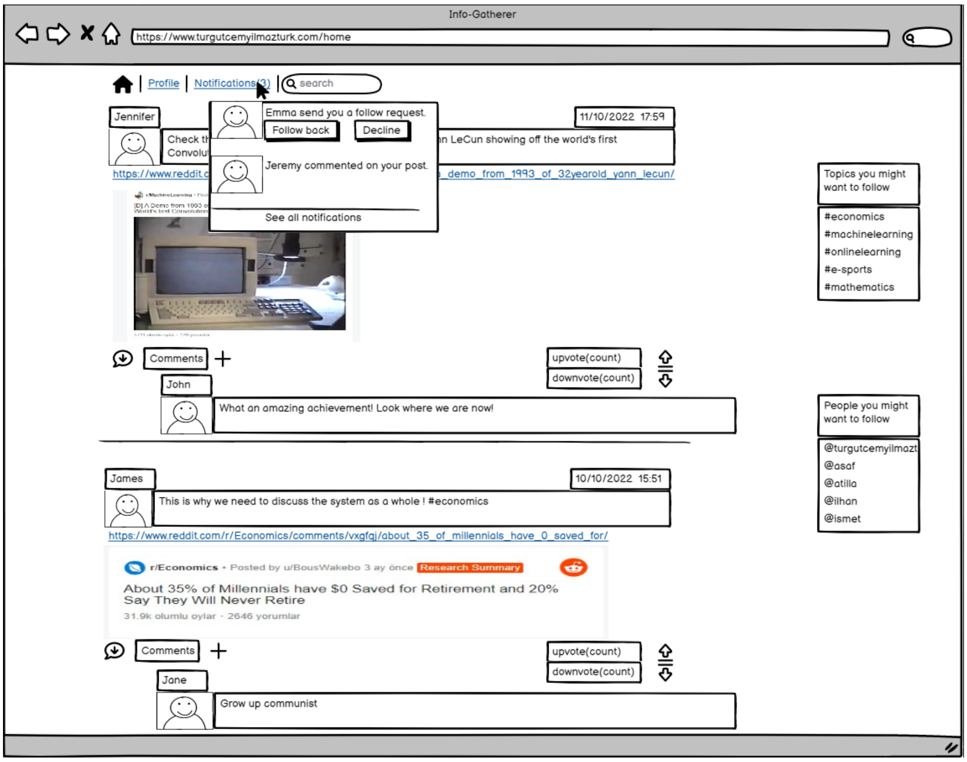
Topics you might want to follow

#economics
#machinelearning
#onlinelearning
#e-sports
#mathematics

People you might want to follow

@turgutcemyilmazt
@asaf
@atilla
@ilhan
@ismet

Notification is clicked on timeline.



Info-Gatherer
https://www.turgutcemyilmazturk.com/home
Profile | Notifications(3) | search

Emma send you a follow request.

Jeremy commented on your post.

Jennifer 11/10/2022 17:59

Check th
Convolut
n LeCun showing off the world's first

https://www.reddit.c _demo_from_1993_of_32yearold_yann_lecun/

John

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31.9k olumlu oylar · 2646 yorumlar

Jane

Grow up communist

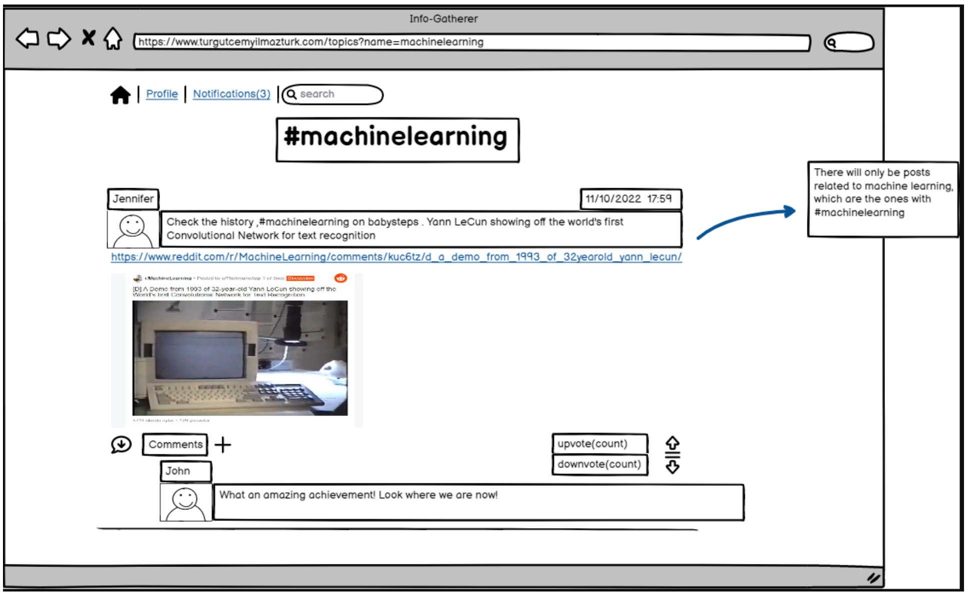
Topics you might want to follow

#economics
#machinelearning
#onlinelearning
#e-sports
#mathematics

People you might want to follow

@turgutcemyilmazt
@asaf
@atilla
@ilhan
@ismet

Topics page



Jennifer 11/10/2022 17:59

Check the history ,#machinelearning on babysteps . Yann LeCun showing off the world's first Convolutional Network for text recognition

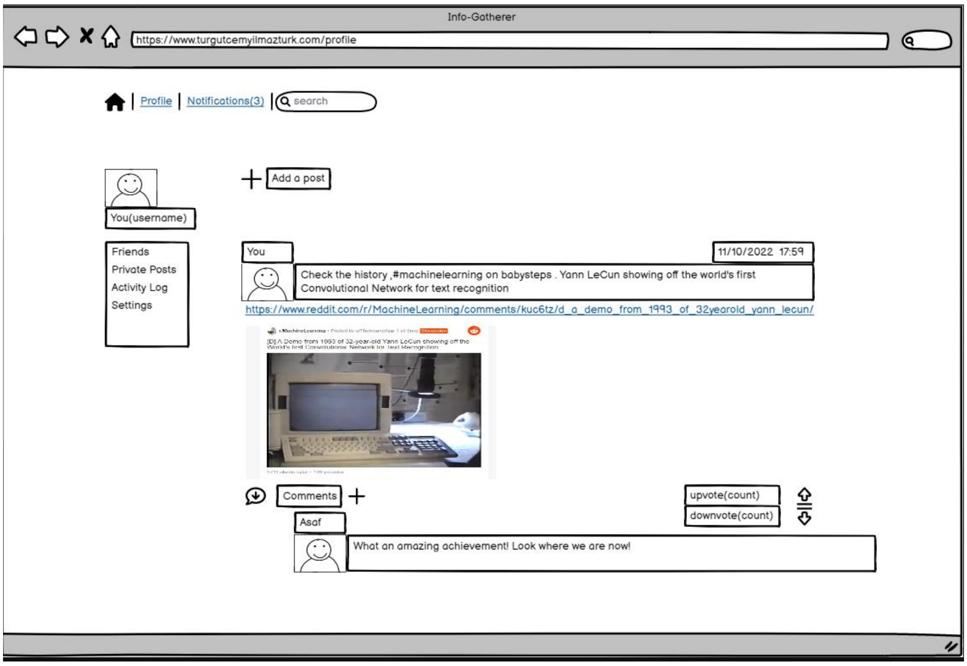
https://www.reddit.com/r/MachineLearning/comments/kuc6tz/d_a_demo_from_1993_of_32yearold_yann_lecun/

John

What an amazing achievement! Look where we are now!

There will only be posts related to machine learning, which are the ones with #machinelearning

Profile Page



You 11/10/2022 17:59

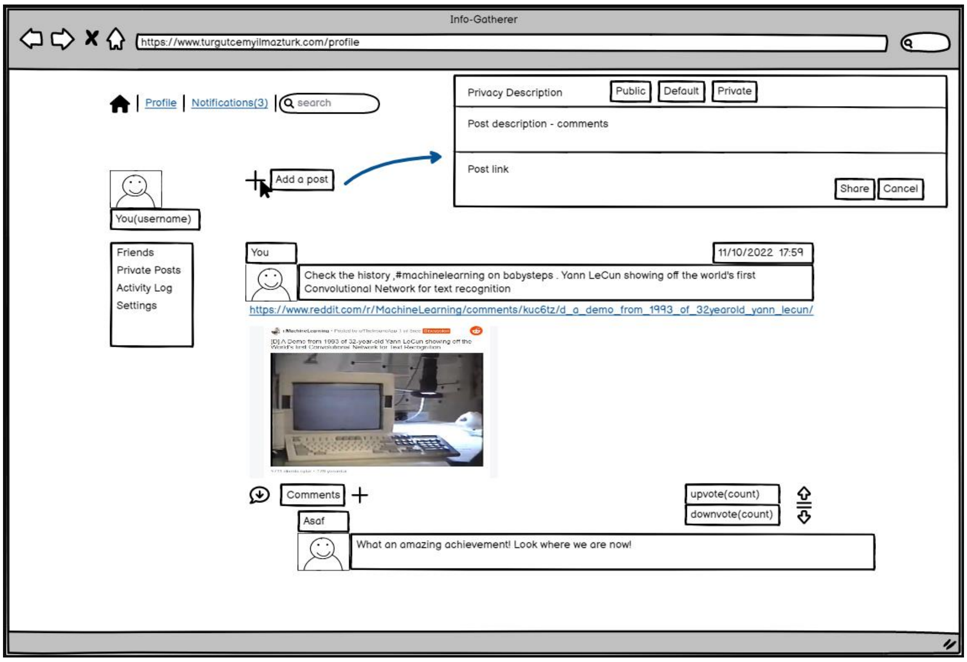
Check the history ,#machinelearning on babysteps . Yann LeCun showing off the world's first Convolutional Network for text recognition

https://www.reddit.com/r/MachineLearning/comments/kuc6tz/d_a_demo_from_1993_of_32yearold_yann_lecun/

Asaf

What an amazing achievement! Look where we are now!

Profile Page - Adding a post

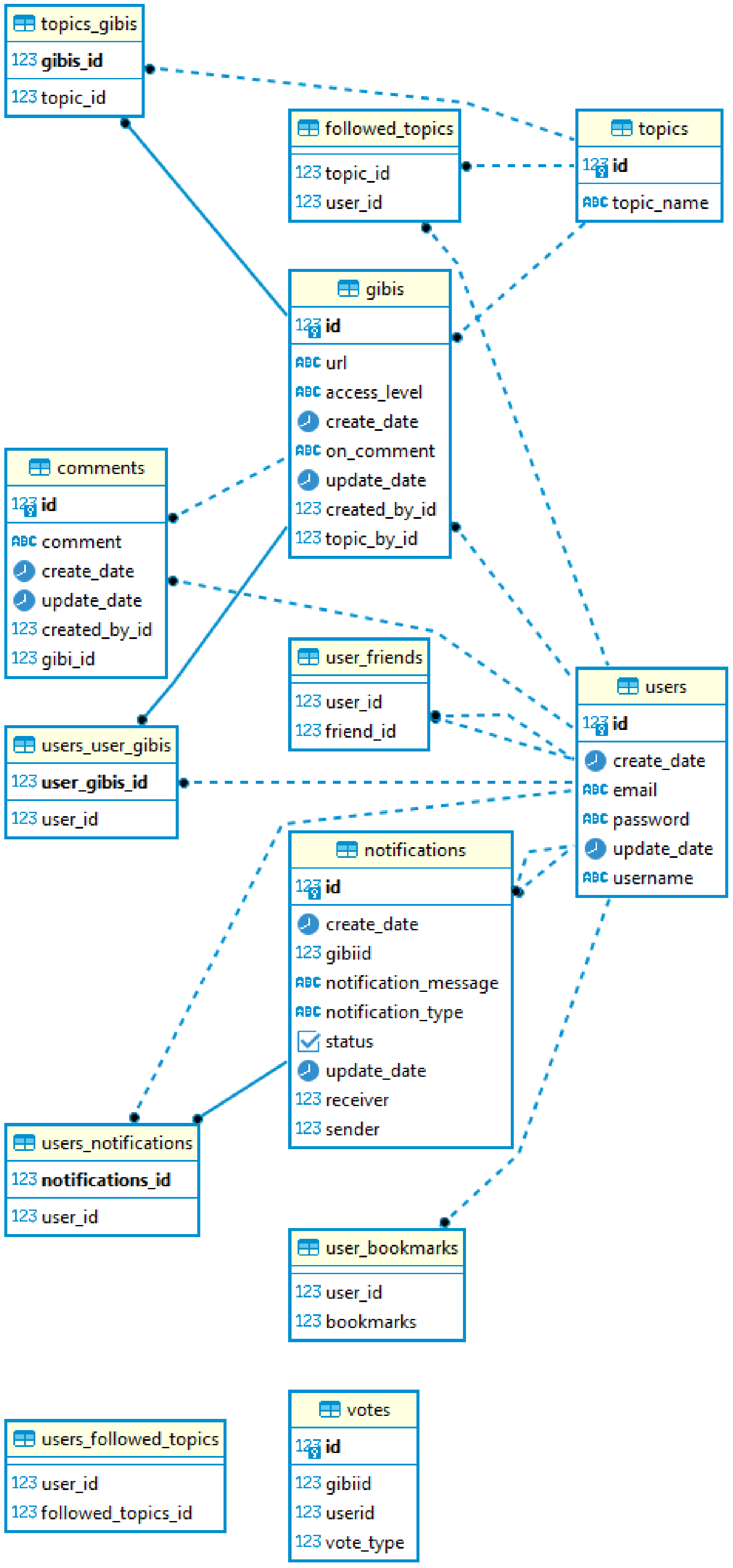


Check the history ,#machinelearning on babysteps . Yann LeCun showing off the world's first Convolutional Network for text recognition

https://www.reddit.com/r/MachineLearning/comments/kuc6tz/d_a_demo_from_1993_of_32yearold_yann_lecun/

What an amazing achievement! Look where we are now!

3.2 ER Diagrams


topics_gibis
123 gibis_id
123 topic_id
followed_topics
123 topic_id
123 user_id
topics
123 id
ABC topic_name
gibis
123 id
ABC url
ABC access_level
create_date
ABC on_comment
update_date
123 created_by_id
123 topic_by_id
comments
123 id
ABC comment
create_date
update_date
123 created_by_id
123 gibi_id
user_friends
123 user_id
123 friend_id
users
123 id
create_date
ABC email
ABC password
update_date
ABC username
users_user_gibis
123 user_gibis_id
123 user_id
notifications
123 id
create_date
123 gibiid
ABC notification_message
ABC notification_type
status
update_date
123 receiver
123 sender
users_notifications
123 notifications_id
123 user_id
user_bookmarks
123 user_id
123 bookmarks
users_followed_topics
123 user_id
123 followed_topics_id
votes
123 id
123 gibiid
123 userid
123 vote_type

4.STATUS OF THE PROJECT:

4.1 Requirements :

Most of the requirements are completed . The requirements mentioned below are either not completed or completed but not working as expected :

-Properties file is not encrypted ! Jasypt(the only open source encryption tool I found) did not work as expected , and there was no time to externalize the configurations .

-The system shall let related users upvote or downvote a GİBİ : Not completed

-The system shall allow users to specify what exactly they search with user search , topic search and GİBİ search options. : There is no search mechanism to separate search entities , it search for all entities which are users,topics and gibi's content.

-The system shall allow users to specify date interval if they are searching for GİBİs. : Not completed

-The search functionality problems are described below :

1-Users and Topics that are returned from the search should be 2 letter distant from the actual word. For instance ; Suzan can be found with keyword Suz but not

with Su. That is not a problem but must be mentioned since it can be configured to any n-letter distance . 2 letter was a random choice .

2-Gibi Content : Gibi content that is returned from the search result has a bug of reflecting username.

The rest of the requirements are completed .

4.2 Status of Deployment :

The project is dockerized and deployed .

URL : http://3.67.198.3:8081/

Docker: https://hub.docker.com/r/turgutcem/swe573/

WARNING : DO NOT PULL AND START THIS IMAGE SINCE IT'S HIBERNATE AUTO-GENERATE DATABASE FROM ENTITIES PROPERTY IS ENABLED , THIS WILL CAUSE

THE PRODUCTION DATABASE TO BE LOST!
Note that this version is connected to production database .

The instructions how to work with dockerized version on local machine is explained in the next section.

5.System&User Manual:

5.1 Systems Manual :

This sections explains how to use dockerized version of our application from local and connect to production database without the loss of data.

1-Clone the repository(https://github.com/turgutcem/swe573.git)

2-cd swe573/swe573 : From terminal go to this path where pom.xml can be found.

3-mvn clean install

4-docker build -t info-gatherer-swe573.jar .

5- docker run -p 8081:8081 info-gatherer-swe573.jar

5.2 User Manual :

The workings of system is explained at :

https://drive.google.com/file/d/1bXuQUp0fPmuWIaDvRe4jyaBVQ4URrXtj/view?usp=sharing