

CSE3026: Web Application Development

Lab 8: Simple Timeline Assignment

Software Engineering Lab

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Lab 8 assignment

This assignment counts 4% towards your final grade

Create Simple Timeline!

- The page created should work in general expectation.
- Use regular expression testers : regular expressions 101, RegExr and so on!

Screenshot of Simple Timeline

This screenshot is taken on Mac in Chrome!

It may differ slightly from your system

Simple Timeline

Author Search

Author	Content	<input type="button" value="write"/>
Captain America 01:34:56 04/11/2015	I'm Steve Rogers and you're Bucky Barnes #Bucky	<input type="button" value="delete"/>
Winter Soldier 01:32:34 04/11/2015	Who the hell is Bucky?	<input type="button" value="delete"/>
Adam Levine 01:28:40 04/11/2015	Sugar, yes please!	<input type="button" value="delete"/>
Adele 01:28:04 04/11/2015	Hello, It's me. How are you #hello	<input type="button" value="delete"/>

Lab 8 resources

Download the [lab8-timeline.zip](#) which consist of :

- **index.php** : skeleton code of the timeline page with the page contents
- **timeline.css** : default stylesheet file
- **timeline.php** : skeleton code of the timeline class
- **add.php** : skeleton code of add functional page
- **delete.php** : skeleton code of delete functional page
- **error.php** : error page view

Lab 8 exercises

According to the specification on following slides :

- Modify **index.php**
 - add proper attributes for form elements
 - write php code to show all tweets or searched tweets
- Modify **timeline.php**
 - fill out all the functions
- Modify **add.php** and **delete.php**
 - receives requests and execute functions
- Modify **error.php**
 - receives errors and show them

Assignment constraints

In order to get full marks, you must satisfy the following constraints.

- You can change only php files
- Do not create or delete files
- Do not create or delete functions
- Do not use **multiple preg_match() function** when you validate author
- Do not change private variable to public.
- Do not change construct function of Timeline class in the timeline.php except mysql username and password.
- The page created should be safe from possible sql injection attacks

Ex 1 : Create DB & table

Create a database called timeline with following table

- Tweet table (table name : tweets) has the following columns :
 - Has **no** column that has **integer** type as **primary key**
 - Has **author** column that is **20 bytes long varchar**
 - Has **contents** column that has **text** type
 - Has **time** column that has **datetime** type
- The system **increments** the key value of **no** column by 1 **automatically**
- does not allow **NULL** in any column

Ex 2 : Fill out the methods

Fill out the functions in the Timeline class

- **add(\$tweet)**
 - Insert a tweet in to the database
 - The written time is set by mysql function now()
- **delete(\$no)**
 - Delete a tweet from the database
- **loadTweets()**
 - Load all the tweets in the descent order of written time
- **searchTweets(\$type, \$query)**
 - Load tweets that meet the conditions in the descent order of written time
 - Can search by **author** or **content** containing **query**

Ex 3 : Modify forms & load tweets

Modify HTML forms in the index.php file

- Search-form sends php **get** request to **index.php**
- add-form sends php **post** request to **add.php**
- delete-form sends php **post** request to **delete.php**
 - create **hidden input** to send tweet number

Load all or searched tweets

- Load all tweets using **loadTweets()** function in the **Timeline** class
- If both of get parameters **type** and **query** are set, then load tweets using **searchedTweets()** function
 - If the parameters are empty or not proper, **load all tweets**
- The format of **written time** is **hour:minute:second date/month/year**

Ex 4 : Write a tweet

Modify add.php file to insert a tweet into the database

- check if the author is composed of alphabets, dash(-), or a single white space.
 - Each word should start and end with alphabets
 - Continuous dashes and white spaces are not allowed
 - The **max length is 20** and **min length is 1**
 - use only one **preg_match()** function to validate author.
 - Allowed : Professor X, Charles Fransis Xavier, X-Men
 - Not allowed : -Magneto-, Erik Lehnsherr, Erik--Lehnsherr
- **HTML tag** should not work in the **content**
- If author or content pass the above checks, insert tweet using **add()** function in the **Timeline** class and redirect to **index.php**
- If author or content does not pass the above checks or an error is generated in the process, redirect to **error.php**

Ex 5. Delete a tweet

Modify delete.php file to delete a tweet from the database

- Delete tweet using **delete()** function in the **Timeline** class and redirect to **index.php**
- If an error is generated in the process, redirect to **error.php**

Ex 6 : Hash tag (#)

Modify `loadTweets()` and `searchTweets()` functions in the `timeline.php` to use hash tag

- use `preg_replace()` or `preg_replace_callback()` find hash tags and add `<a>` tag with proper query string
- `index.php` page show you the result of search when you click hash tag

Hint : send get message using `<a>tag`

Submission

If you complete the assignment :

1. Zip all of files and name it studentid-name.zip
(i.e, 2015100000-GayeonKim.zip)
2. Submit your zip file through email
 - email title should start with [CSE3026]. Otherwise, 1% will be deducted
 - Submission email address : gayeonkim91@gmail.com
- Due date for this assignment is **13th November 2015 11:59pm**
 - Late submission will not be accepted