

Solutions - Week 3 Assignment

1. Of Alan Westin's three categories of privacy preferences, most people belong to the category of
 - a. Fundamentalists
 - b. Pragmatists**
 - c. Unconcerned
 - d. Concerned

2. Facebook Inspector outputs two values, a binary value (malicious/non-malicious) and a corresponding confidence value (low/high). A post marked malicious with low confidence is
 - a. More likely to be malicious than a post marked malicious with high confidence
 - b. Less likely to be malicious than a post marked malicious with high confidence**
 - c. Exactly as likely to be malicious as a post marked malicious with high confidence
 - d. Twice as likely to be malicious as a post marked malicious with high confidence

3. According to the survey conducted to understand privacy perceptions in India, people were most likely to accept a friendship request on an online social medium if the request came from
 - a. A person from their hometown
 - b. A person with a nice profile picture
 - c. A person of the opposite gender**
 - d. A person they did not know or recognize, but had common/mutual friends with

4. Which of the following are mandatory in order to create an **application** on Twitter?
 - a. Phone number**
 - b. Zip code
 - c. Country of origin
 - d. Date of birth

5. Twython is
 - a. The official name of the Twitter API
 - b. A Python wrapper around the Twitter API**
 - c. A web service hosted by Twitter and written in Python
 - d. A new programming language supported by Twitter

6. Which of the following is the right way to check if MongoDB has been successfully installed **and** is running on the Ubuntu system?
 - a. From the python shell, run *import mongodb*
 - b. From the python shell, run *import pymongo*
 - c. Type mongo in your terminal and press enter**

- d. All of the above
7. What does the command `db.tweets.find()`, when run from the mongo shell, do?
- a. Connects to the database named *tweets* and finds all the records in that database
 - b. Makes an API call to twitter and stores the collected tweets in the mongo database
 - c. Counts the number of documents in the collection named tweets
 - d. **Fetches all documents from the collection named tweets, in the database that we have previously switched to**
8. According to Alan Westin's three categories of privacy preferences, people who have rigid privacy expectations and do not willingly give up personal information are
- a. Pragmatists
 - b. Concerned
 - c. **Fundamentalists**
 - d. Unconcerned
9. What is/are the command(s) for MySQL Login via terminal?
- a. `mysql`
 - b. `mysql -u username`
 - c. **`mysql -u <username> -p <database_name>`**
 - d. **`mysql -u username -p`**
10. The following commands are run on a fresh installation of MongoDB.
- C1: `show dbs`
 - C2: `use tweets`
 - C3: `show dbs`
- If X is the number of databases listed by C1, and Y is the number of databases listed by C3, which of the following correctly identifies the relationship between X and Y?
- a. $X > Y$
 - b. $Y > X$
 - c. **$X = Y$**
 - d. $Y = X + 1$

The following commands are run on a fresh installation of MongoDB.

- C1: `use tweets`
- C2: `db.tweets.insertOne({_id: 'user', name: 'Jeffrey Ullman'})`
- C3: `db.tweets.insertOne({_id: 'user', name: 'Christos Papadimitriou'})`

11. Which of the following does C2 do?
- a. Insert a document into the "user" collection of the "tweets" database
 - b. **Insert a document into the "tweets" collection of the "tweets" database**

- c. Insert a document into the “*tweets*” collection of the “*test*” database
- d. Insert a document into the “*tweets*” collection of the “*user*” database

12. What happens when C3 is executed?

- a. A document is added to the “*user*” collection of the “*tweets*” database
- b. A document is added to the “*tweets*” collection of the “*user*” database
- c. A document is added to the “*tweets*” collection of the “*tweets*” database
- d. **An error is thrown, because MongoDB does not allow two documents to have the same value of *_id***

13. Which of the following information about a tweet is provided by the Twitter API?

- a. When the tweet was made (it’s timestamp)
- b. The number of retweets of the tweet
- c. The number of favorites of the tweet
- d. The geolocation attached to the tweet (if any)
- e. **All of the above**

The following commands are run on a fresh installation of MySQL.

C1: *create table tweets (tweet_id int, tweet_text varchar(141) primary key);*

C2: *insert into tweets values (1, 'My first tweet.');*

C3: *insert ignore into tweets values (1, 'My second tweet.');*

C4: *insert into tweets values (2, 'My first tweet.');*

C5: *select count(*) from tweets;*

14. Which of the following happen when C3 is executed?

- a. **MySQL adds a new row to the *tweets* table**
- b. MySQL does not add a new row to the *tweets* table
- c. MySQL throws an error
- d. None of the above

15. Which of the following happen when C4 is executed?

- a. MySQL adds a new row to the *tweets* table
- b. **MySQL does not add a new row to the *tweets* table**
- c. **MySQL throws an error**
- d. None of the above

16. The output of C5 is

- a. 1
- b. **2**
- c. 3
- d. 4

17. Which of the following information about a user is returned by the Twitter API?

- a. **The user's username on Twitter**
 - b. The telephone number used by the user to sign up with Twitter
 - c. **The number of followers the user has on Twitter**
 - d. The email address used by the user to sign up with Twitter
18. We can fetch the past tweets of a Twitter user by using
- a. The *track* endpoint of the REST API
 - b. **The *user_timeline* endpoint of the REST API**
 - c. The *track* endpoint of the Streaming API
 - d. The *user_timeline* endpoint of the Streaming API
19. Select the correct statement regarding Twitter's Streaming API.
- a. *track* is used to collect tweets mentioning a keyword, while *follow* is used to collect tweets mentioning a user
 - b. ***track* is used to collect tweets mentioning a keyword, while *follow* is used to collect tweets tweeted by a user**
 - c. *track* is used to collect tweets from the users a user follows, while *follow* is used to collect the user's own tweets
 - d. *track* and *follow* both collect tweets mentioning a keyword, and can be used interchangeably
20. Recall the survey conducted to understand privacy perceptions in India. In the context of the survey, if X is the probability of a male accepting a friendship request from a female on a social media platform, and Y is the probability of a female accepting a friendship request from a male on the same platform, which of the following correctly identifies the relationship between X and Y ?
- a. $X > Y$
 - b. $X = Y$
 - c. **$X < Y$**
 - d. $Y = X^2$