Section 1:

We will use the mongoDB for our database. Here is our database schema:

```
var Schema = mongoose.Schema;
var tweetSchema = new Schema ({
    Hashtage: String,
    Location: String,
    Keyword: String
});
var tweetsNearU = mongoose.model('TweetsNearBy', tweetSchema);
```

Section 2:

1. Form Field Validation

Page Name	Form.ID	Expected Value	Test ID	Test Value	Pass/Fail
Twitter search	Textinput, Name	string/image /video	tweet.1	Trump	
Twitter search	Textinput, Place	string/image /video	tweet.2	Boston	
Twitter search	Two Textinputs	string/image /video	tweet.3	hashtag: #boston Search: Dining	
Twitter search	Three Textinputs	string/image /video	tweet.4	Hashtag: #boston Search: Dining Location: 824 Beacon st	
Twitter search	Multiple Textinput, combination of the above cases	string/image /video	tweet.5	Nice resturants near Boston University	

2. Data validation

Table	Field	Туре	Read/W rite	Data Source	Constrai ns	TestID	Pass/Fa il
Tweets NearBy	HashTa g	String	r	form input	String < 100	data.1	
Tweets NearBy	Location	String	r	form input	String < 100	data.2	
Tweets NearBy	Keywor d	String	r	form input	String < 100	data.3	

3. UI Validation

Page Name	UI Element	Expected Function	Test ID	Pass/ Fail
Main	Search_Button	Search of Searchable_A PI	1	
Main	Content Display	Display media	2	
Main	Login/ Log off	Authentication	3	

4. Remediation

Bug ID	Test ID	Description	Severity	Assigned	Complete Date
1	3	Must implement authenticati on	1	Tianying	TBD