ACTIVITY1

Requirements:

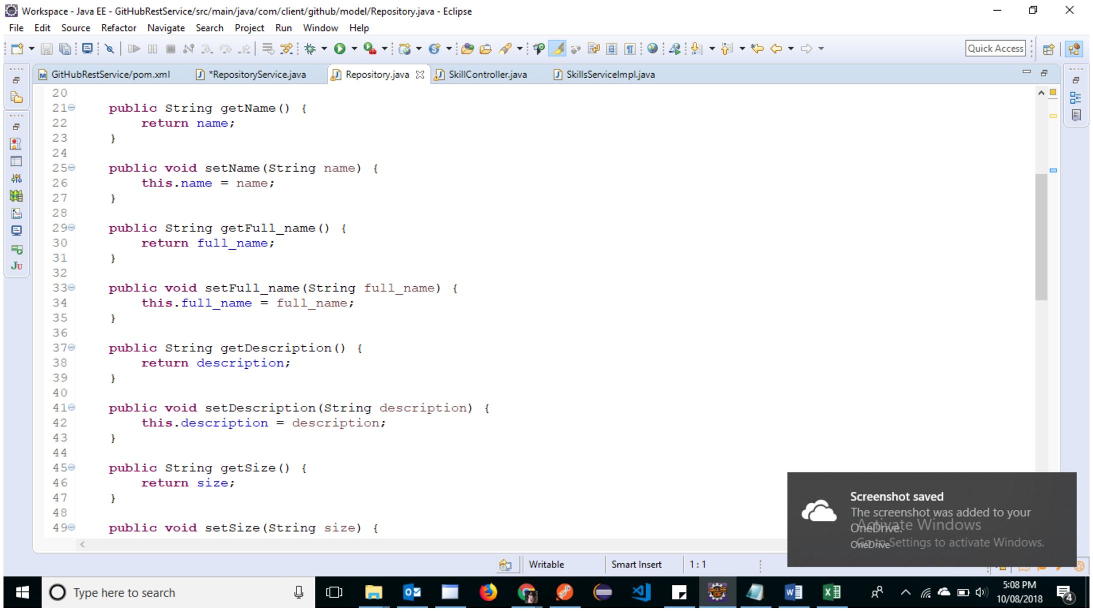
You are required to deliver a REST service, that provides an interface for submitting a set of GitHub repositories (identified as a list of strings of the form “username/repositoryname”). You service should identify the set of GitHub developers who have contributed to any of these repositories in 2018, and for this user set, provide an ordering that ranks these users according to one of the following criteria:
1. Total number of commit contributions to any project to which a user has a contributed.
2. Total number of commit contributions as above, but restricted to projects that are members of the original submitted set.
3. The number of known programming languages for each user (presuming that the languages of any repository committed to are known to the user)
4. The weekly commit rate of users (provide a weekly rank ordering) for the submitted project set, for 2018.
5. The average commit rate of each user to any project, for 2018.
6. The total number of collaborators in 2018 (ie. a count of other users who have contributed to any project that the user has contributed to).

Your rest service should email the results of calculation to the submitter once complete. You may design the REST API of your service as you see fit. You must describe it in your report. Your service must be capable of accepting concurrent requests.

You should provide a report detailing the architecture of your solution, and detailing results of the execution of your solution over a set of at least 5 repositories.

Step 1

Creating Model class to display the required values


Workspace - Java EE - GitHubRestService/src/main/java/com/client/github/model/Repository.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
GitHubRestService/pom.xml
*RepositoryService.java
Repository.java
SkillController.java
SkillsServiceImpl.java
Writable
Smart Insert
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Screenshot saved
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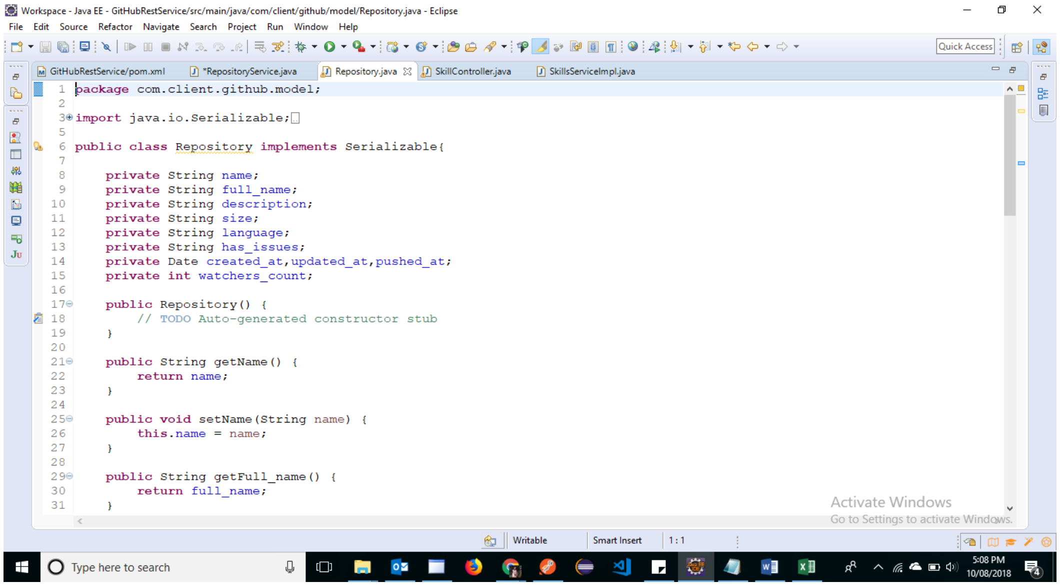
Type here to search
5:08 PM
10/08/2018

```

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getFull_name() {
        return full_name;
    }

    public void setFull_name(String full_name) {
        this.full_name = full_name;
    }

    public String getDescription() {
        return description;
    }

    public void setDescription(String description) {
        this.description = description;
    }

    public String getSize() {
        return size;
    }

    public void setSize(String size) {
```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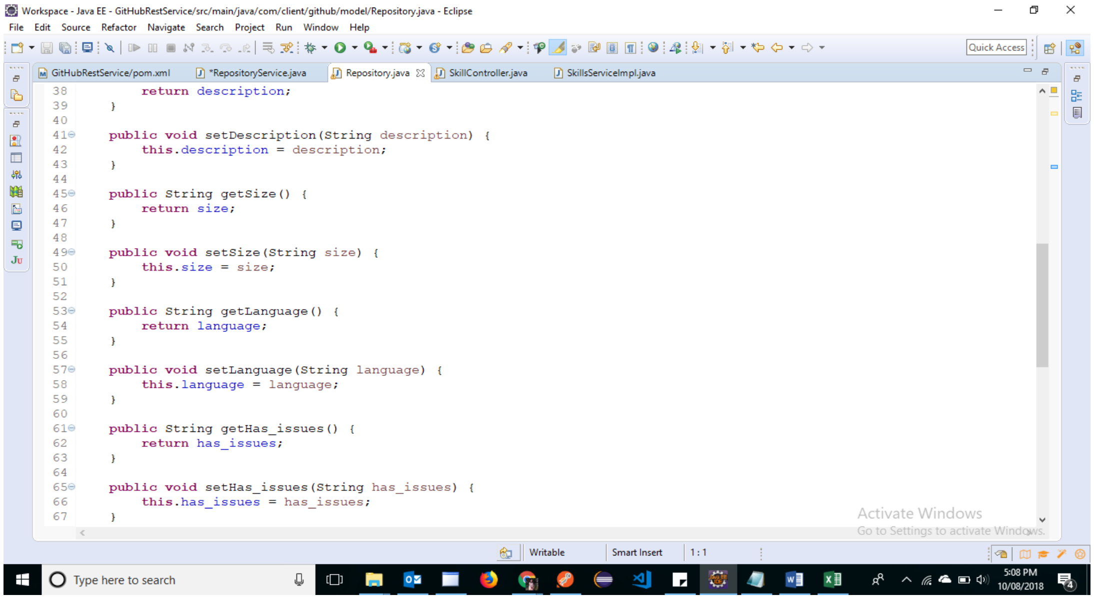
10/08/2018

```java
package com.client.github.model;

import java.io.Serializable;

public class Repository implements Serializable{

    private String name;
    private String full_name;
    private String description;
    private String size;
    private String language;
    private String has_issues;
    private Date created_at,updated_at,pushed_at;
    private int watchers_count;

    public Repository() {
        // TODO Auto-generated constructor stub
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getFull_name() {
        return full_name;
    }
```


Workspace - Java EE - GitHubRestService/src/main/java/com/client/github/model/Repository.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Quick Access
GitHubRestService/pom.xml
*RepositoryService.java
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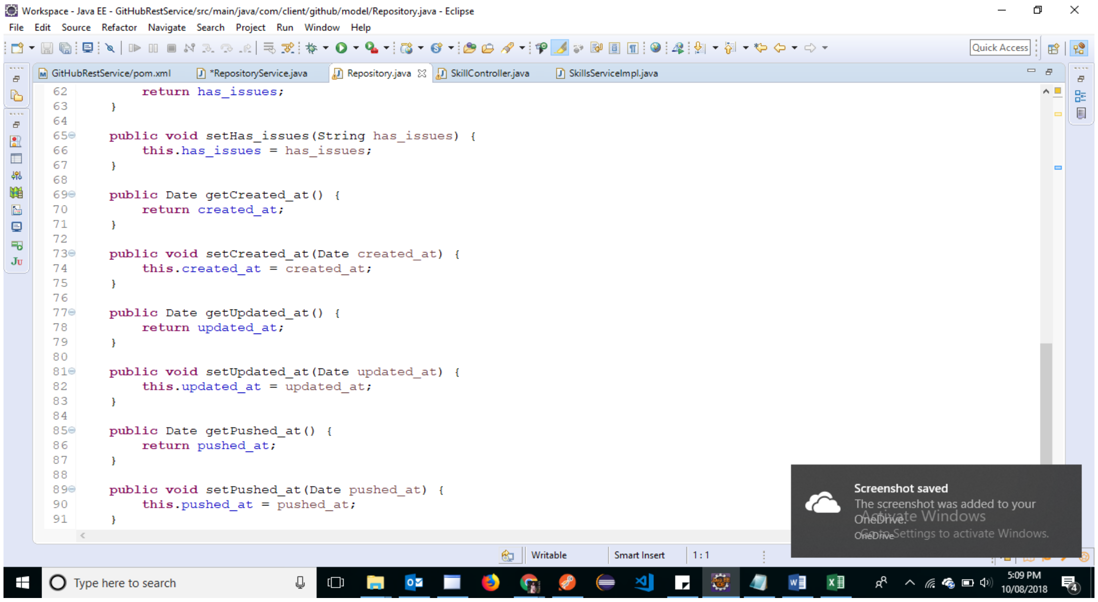
SkillController.java
SkillsServiceImpl.java
Activate Windows
Go to Settings to activate Windows.
Writable
Smart Insert
1 : 1
Type here to search
5:08 PM
10/08/2018

```java
        return description;
    }

    public void setDescription(String description) {
        this.description = description;
    }

    public String getSize() {
        return size;
    }

    public void setSize(String size) {
        this.size = size;
    }

    public String getLanguage() {
        return language;
    }

    public void setLanguage(String language) {
        this.language = language;
    }

    public String getHas_issues() {
        return has_issues;
    }

    public void setHas_issues(String has_issues) {
        this.has_issues = has_issues;
    }
```



Workspace - Java EE - GitHubRestService/src/main/java/com/client/github/model/Repository.java - Eclipse

```
        return has_issues;
    }

    public void setHas_issues(String has_issues) {
        this.has_issues = has_issues;
    }

    public Date getCreated_at() {
        return created_at;
    }

    public void setCreated_at(Date created_at) {
        this.created_at = created_at;
    }

    public Date getUpdated_at() {
        return updated_at;
    }

    public void setUpdated_at(Date updated_at) {
        this.updated_at = updated_at;
    }

    public Date getPushed_at() {
        return pushed_at;
    }

    public void setPushed_at(Date pushed_at) {
        this.pushed_at = pushed_at;
    }
```

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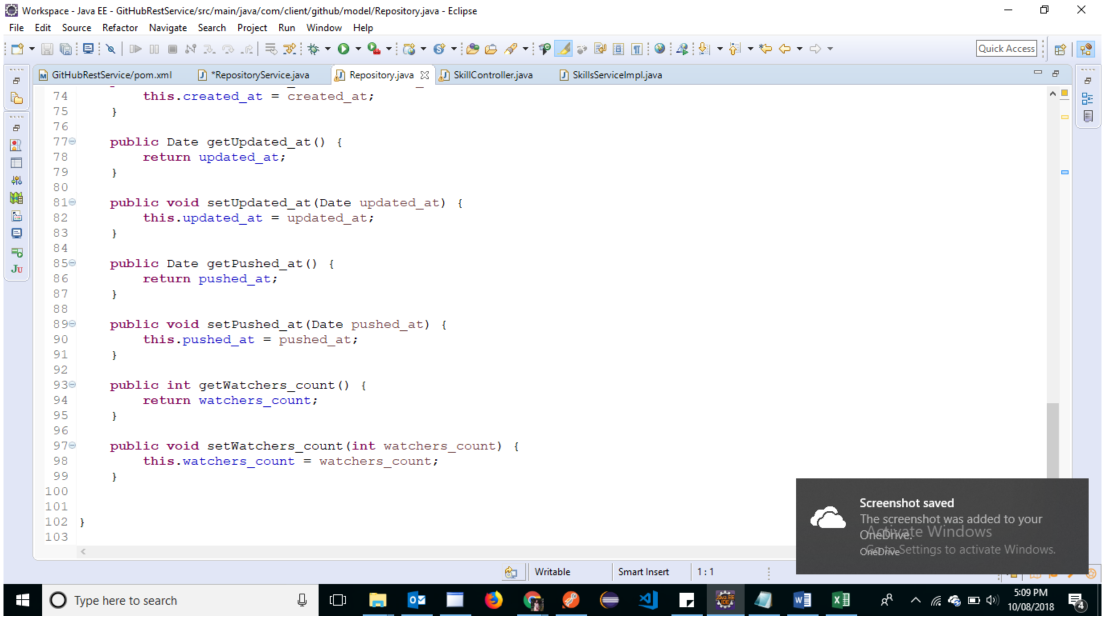

Workspace - Java EE - GitHubRestService/src/main/java/com/client/github/model/Repository.java - Eclipse

```
        this.created_at = created_at;
    }

    public Date getUpdated_at() {
        return updated_at;
    }

    public void setUpdated_at(Date updated_at) {
        this.updated_at = updated_at;
    }

    public Date getPushed_at() {
        return pushed_at;
    }

    public void setPushed_at(Date pushed_at) {
        this.pushed_at = pushed_at;
    }

    public int getWatchers_count() {
        return watchers_count;
    }

    public void setWatchers_count(int watchers_count) {
        this.watchers_count = watchers_count;
    }


}

```

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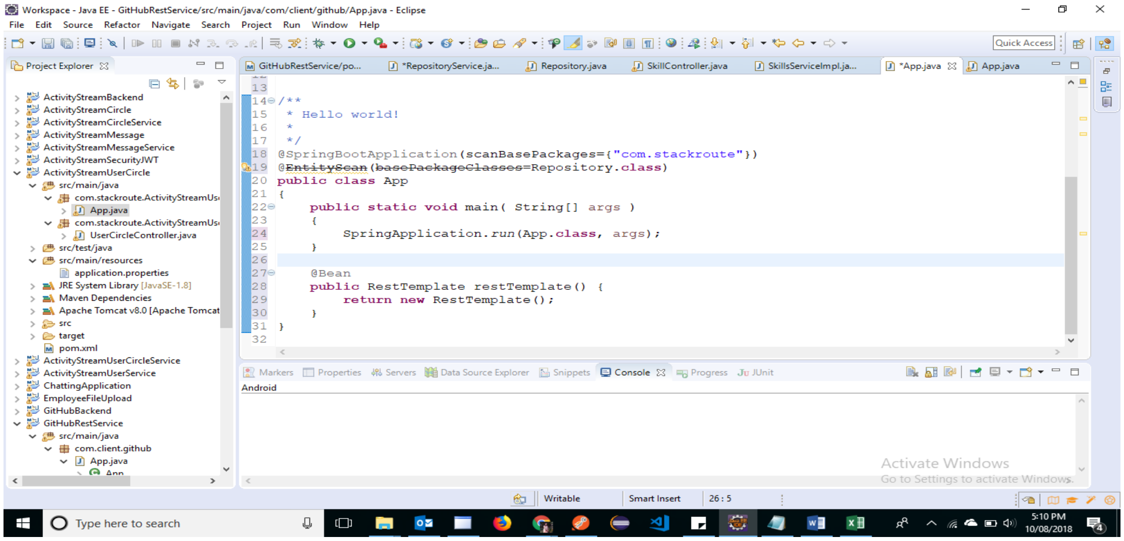
Step 2: Creating REST API

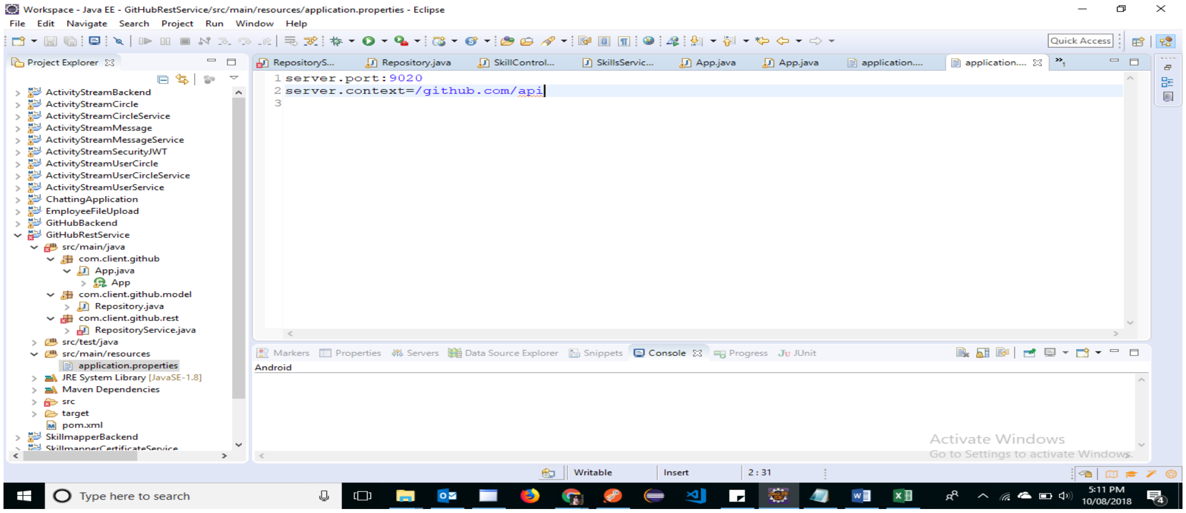


Workspace - Java EE - GitHubRestService/src/main/java/com/client/github/App.java - Eclipse

```java
/**
 * Hello world!
 *
 */
@SpringBootApplication(scanBasePackages={"com.stackroute"})
@~~EntityScan~~(~~basePackageClasses~~=Repository.class)
public class App
{
    public static void main( String[] args )
    {
        SpringApplication.run(App.class, args);
    }

    @Bean
    public RestTemplate restTemplate() {
        return new RestTemplate();
    }
}
```

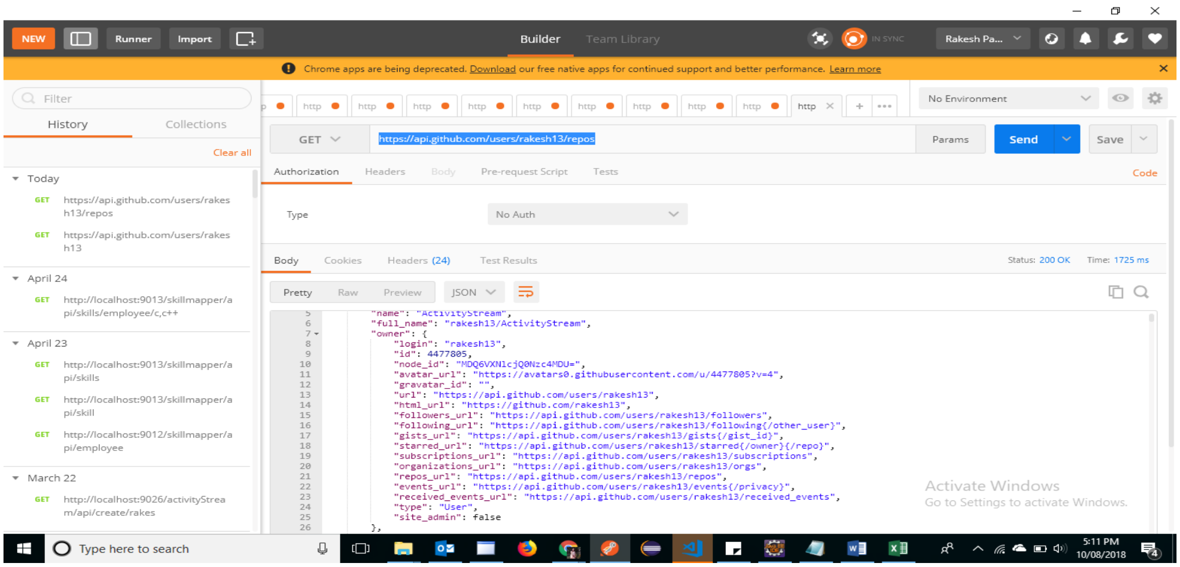
Step 3: Setting up server id and port no



Workspace - Java EE - GitHubRestService/src/main/resources/application.properties - Eclipse

```
server.port:9020
server.context=/github.com/api
```

Step 3: Verifying the output via Postman



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GET https://api.github.com/users/rakesh13/repos

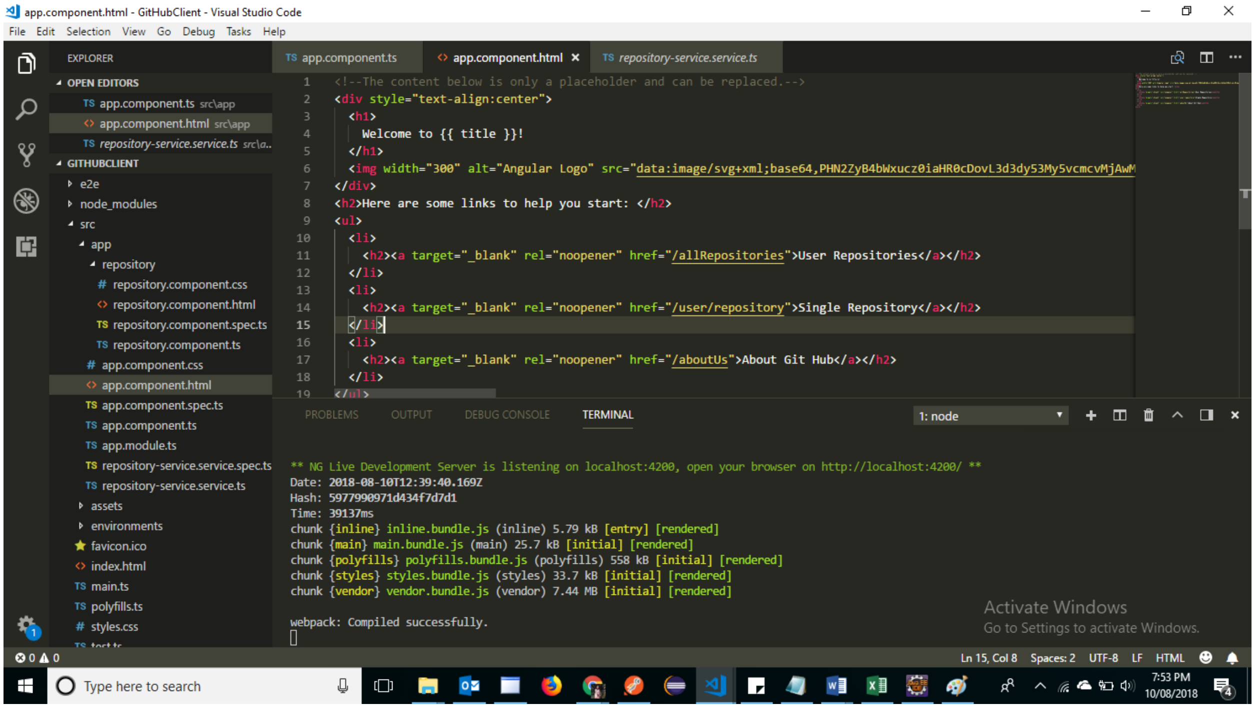
Authorization — Type: No Auth

Body — Status: 200 OK Time: 1725 ms

```
"name": "ActivityStream",
"full_name": "rakesh13/ActivityStream",
"owner": {
    "login": "rakesh13",
    "id": 4477805,
    "node_id": "MDQ6VXNlcjQ0Nzc4MDU=",
    "avatar_url": "https://avatars0.githubusercontent.com/u/4477805?v=4",
    "gravatar_id": "",
    "url": "https://api.github.com/users/rakesh13",
    "html_url": "https://github.com/rakesh13",
    "followers_url": "https://api.github.com/users/rakesh13/followers",
    "following_url": "https://api.github.com/users/rakesh13/following{/other_user}",
    "gists_url": "https://api.github.com/users/rakesh13/gists{/gist_id}",
    "starred_url": "https://api.github.com/users/rakesh13/starred{/owner}{/repo}",
    "subscriptions_url": "https://api.github.com/users/rakesh13/subscriptions",
    "organizations_url": "https://api.github.com/users/rakesh13/orgs",
    "repos_url": "https://api.github.com/users/rakesh13/repos",
    "events_url": "https://api.github.com/users/rakesh13/events{/privacy}",
    "received_events_url": "https://api.github.com/users/rakesh13/received_events",
    "type": "User",
    "site_admin": false
},
```

History:
- Today: GET https://api.github.com/users/rakesh13/repos
- GET https://api.github.com/users/rakesh13
- April 24: GET http://localhost:9013/skillmapper/api/skills/employee/c,c++
- April 23: GET http://localhost:9013/skillmapper/api/skills
- GET http://localhost:9013/skillmapper/api/skill
- GET http://localhost:9012/skillmapper/api/employee
- March 22: GET http://localhost:9026/activityStream/api/create/rakes

Step 5: Creating the UI using Angular 6 and Node server

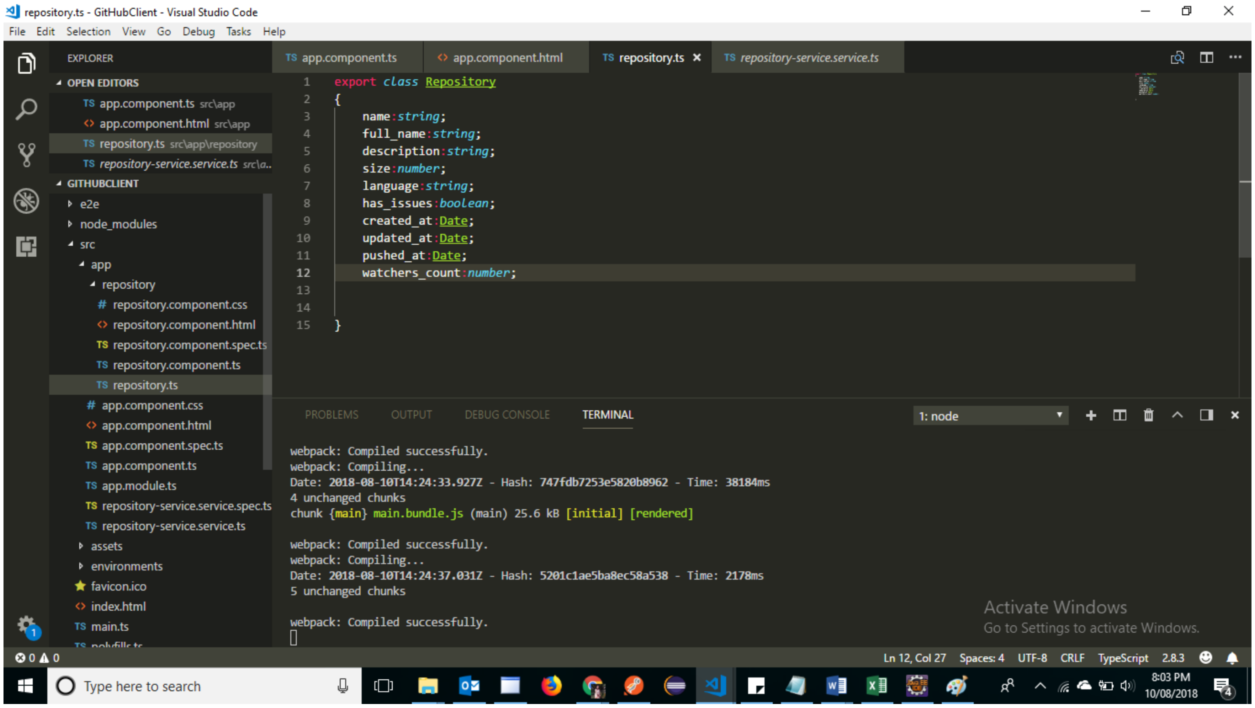


```html
<!--The content below is only a placeholder and can be replaced.-->
<div style="text-align:center">
  <h1>
    Welcome to {{ title }}!
  </h1>
  <img width="300" alt="Angular Logo" src="data:image/svg+xml;base64,PHN2ZyB4bWxucz0iaHR0cDovL3d3dy53My5vcmcvMjAwM
</div>
<h2>Here are some links to help you start: </h2>
<ul>
  <li>
    <h2><a target="_blank" rel="noopener" href="/allRepositories">User Repositories</a></h2>
  </li>
  <li>
    <h2><a target="_blank" rel="noopener" href="/user/repository">Single Repository</a></h2>
  </li>
  <li>
    <h2><a target="_blank" rel="noopener" href="/aboutUs">About Git Hub</a></h2>
  </li>
</ul>
```

```
** NG Live Development Server is listening on localhost:4200, open your browser on http://localhost:4200/ **
Date: 2018-08-10T12:39:40.169Z
Hash: 5977990971d434f7d7d1
Time: 39137ms
chunk {inline} inline.bundle.js (inline) 5.79 kB [entry] [rendered]
chunk {main} main.bundle.js (main) 25.7 kB [initial] [rendered]
chunk {polyfills} polyfills.bundle.js (polyfills) 558 kB [initial] [rendered]
chunk {styles} styles.bundle.js (styles) 33.7 kB [initial] [rendered]
chunk {vendor} vendor.bundle.js (vendor) 7.44 MB [initial] [rendered]

webpack: Compiled successfully.
```

Step 6: Creating the model class in Angular



```
export class Repository
{
    name:string;
    full_name:string;
    description:string;
    size:number;
    language:string;
    has_issues:boolean;
    created_at:Date;
    updated_at:Date;
    pushed_at:Date;
    watchers_count:number;


}
```

```
webpack: Compiled successfully.
webpack: Compiling...
Date: 2018-08-10T14:24:33.927Z - Hash: 747fdb7253e5820b8962 - Time: 38184ms
4 unchanged chunks
chunk {main} main.bundle.js (main) 25.6 kB [initial] [rendered]

webpack: Compiled successfully.
webpack: Compiling...
Date: 2018-08-10T14:24:37.031Z - Hash: 5201c1ae5ba8ec58a538 - Time: 2178ms
5 unchanged chunks

webpack: Compiled successfully.
```