# SWE-645 Assignment-1

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The name of the Zip folder is "HW1_AtharvaSalehittal_SWE645". There are two folders in zip file: Part1, where the source code of Part1 of the assignment is present and Part2, where the source code of Part2 of the assignment, .pem and .war file of the dynamic web project, are present.

Part – 1

In Part 1 section, I have made my "Portfolio" website for this assignment. I've added image and small paragraph as well. I've created AWS S3 instance and moved my website there. Below is the link and snap of the website:
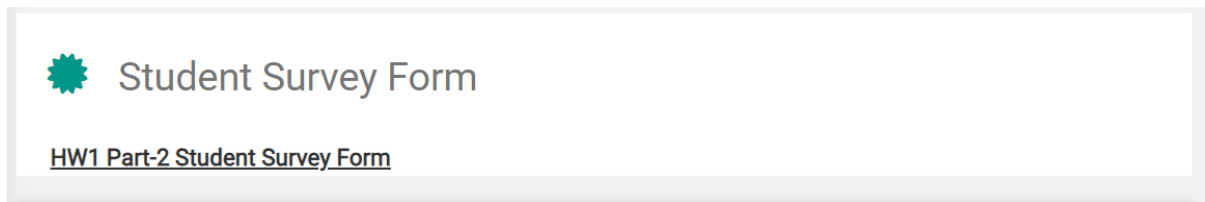
http://swe-645assignment-1.s3-website-us-east-1.amazonaws.com/

Link of my website hosted on the AWS S3 instance:
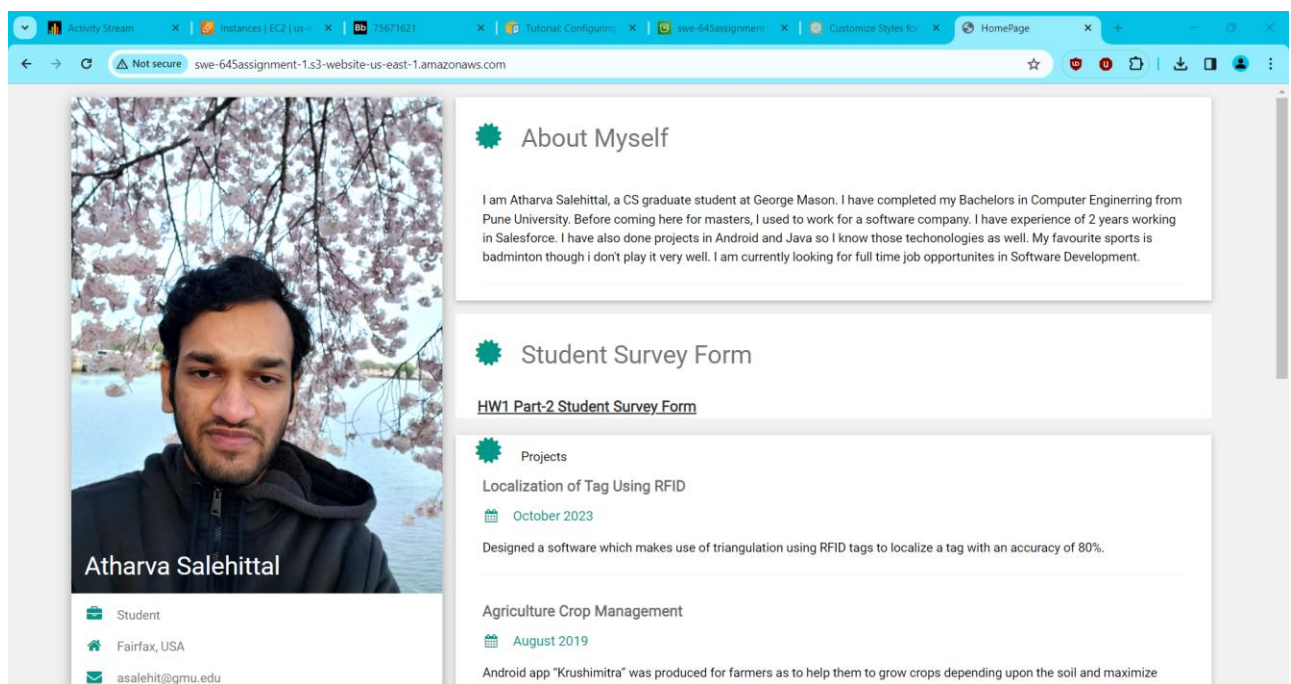
Student Survey Form Section:

This section has the link to HW1 Part2- Student Survey Form so that it is easier to locate the link of the Student Survey Form. Below is the snap of it:

Student Survey Form

HW1 Part-2 Student Survey Form

Clicking on the link the student survey form is opened as shown below:

Part – 2

Steps followed for the Installation and Setup to run the Part 2 of the assignment:

1. Install Eclipse IDE and launch it.

2. Download Apache Tomcat for the system.

3. In Eclipse, create a Dynamic Web Project and give name to the project which I have given as "SurveyForm".

4. Select "Target Runtime" as the recently downloaded Appache Tomcat run file.
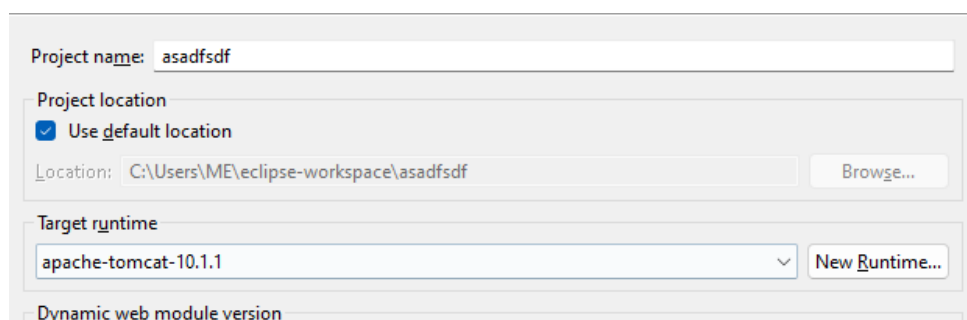
5. Make sure to select .xml file generator which will be helpful if you want to modify the name of the html file because default name is index.html

☐ Generate web.xml deployment descriptor

6. After creating Dynamic web project, navigate to src >> main >> webapps folder in the project and create required html and css files.

7. Write the required code of the survey form, Run the project on the Tomcat server, run as >> run on the server if successful follow the below steps else solve the errors.

8. Once done, right click on the project name on the left panel >> Go to Export >> War file. War file is downloaded.
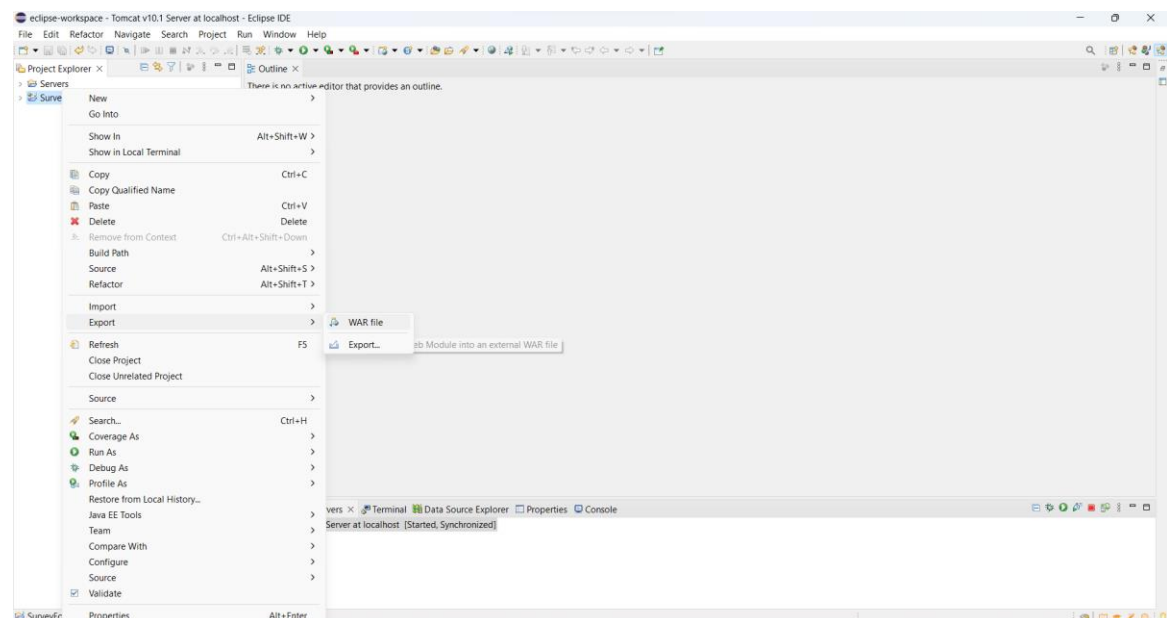
9. Login in AWS and click on "Create EC2 Instance". EC2 Dashboard will be opened.

10. On the left pane under Images dropdown. Select AMI Catalog

11. Go to "AWS Marketplace AMIs" and search for "Apache Tomcat packaged by Bitnami". You get one card. Click on select.

Apache Tomcat packaged by Bitnami

By **Bitnami by VMware** 🔗 | Ver 8.5.85-8-r08 on Debian 11

★★★★☆ 7 AWS reviews 🔗

Apache Tomcat is a web server designed to host and run Java-based web applications, and is one of the most widely adopted application servers in the world. This lightweight server provides great performance for applications running in production environments. This application is based on Java Ser...

Select

12. Select Continue. Name the server and select the instance type as "t2micro" since it is FREE TIER ELIGIBLE.

ab8a-2fcfbcb81353

🔍 |

Get advice on instance type selection...

t2.nano
Family: t2   1 vCPU   0.5 GiB Memory   Current generation: true
This instance type is not supported by the selected AMI

t2.micro   Free tier eligible
Family: t2   1 vCPU   1 GiB Memory   Current generation: true

t2.small
Family: t2   1 vCPU   2 GiB Memory   Current generation: true

t2.medium
Family: t2   2 vCPU   4 GiB Memory   Current generation: true

t2.large
Family: t2   2 vCPU   8 GiB Memory   Current generation: true

t2.xlarge
Family: t2   4 vCPU   16 GiB Memory   Current generation: true

t2.2xlarge

t3a.small
Family: t3a   2 vCPU   2 GiB Memory   Current generation: true

Including AMIs from AWS, Marketplace and the Community

device type   ENA Enabled
                      Yes

without creating a new subscription.
to this software and agree that your

⬤ All generations

Compare instance types

The AMI vendor recommends using a t3a.small instance (or larger) for the best experience with this product.

13. Create key-value pair and name them. After naming them .pem will be downloaded. My .pem file is surveyform-key. We use this file later.

14. Connect to Instance through SSH.

EC2 Instance Connect | **Session Manager** | **SSH client** | **EC2 serial console**

Instance ID

📋 i-0096a4f99f641139d (SWE-645SurveyForm)

1. Open an SSH client.

2. Locate your private key file. The key used to launch this instance is surveyform-key.pem

3. Run this command, if necessary, to ensure your key is not publicly viewable.
   📋 chmod 400 "surveyform-key.pem"

4. Connect to your instance using its Public DNS:
   📋 ec2-35-153-129-180.compute-1.amazonaws.com

Example:

📋 ssh -i "surveyform-key.pem" admin@ec2-35-153-129-180.compute-1.amazonaws.com

ⓘ **Note:** In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

15. Open Windows PowerShell & enter below Command where "surveyform-key.pem" is key pair file downloaded at the time of creation of instance.

16. Using SCP, upload the WAR file

17. Move that war file to the webapps folder.

```
bitnami@ip-172-31-34-120:~$ sudo cp SurveyForm.war stack/apache-tomcat/webapps

bitnami@ip-172-31-34-120:~$ cd ~/stack/apache-tomcat/webapps
bitnami@ip-172-31-34-120:~/stack/apache-tomcat/webapps$ ls
docs   examples   host-manager   manager   ROOT   SurveyForm   SurveyForm.war
```

18. Launch the URL appending the name of the war file.

https://ec2-34-226-219-109.compute-1.amazonaws.com/SurveyForm/

19. Open this link and you will get the Student Survey form like the below snap. Sometimes, after clicking on this link, you will be directed to the page saying "The link is not secure.". In that case, select "Advance" button below and click on "Proceed with …." Link. You will be taken to Student Survey form after that.