Full marks - 100 marks

Project marks - 75 marks

MCQ marks- 25 marks

Deadline- 8th Aug 9AM

Submission link -
https://docs.google.com/forms/d/e/1FAIpQLSf6rnZZJiqD7CsNjVvjCadcrKYJZwYowjLHCOvO5NcvUw51Yw/viewform?usp=sf_link

Part-1 SDLC: Scrum 30 marks

Overview :

Everyday we come across different problems, situations and we come up with ideas to solve them. You have to select one of the ideas yourself and describe the following requirements of the product development lifecycle.

1. Identify the problems. Write the description of your app, software or website in 200 words or less. **5 marks**

Last year our group in the university had to do an application project which was an app when person enter it can detect their face we did call it facial recognition app
We as group used a milestone plan to finish the application.
Our scrum master was our adviser

1 concepts

- Owner of the app was looking for an app to get exact needs of it
- Product owner discussed the requirment
- He also was discussing the features for app such as it can detect the person if they are laughing or sad

2 inception

As a small team we can not chose specific developers to work on the project so We divided the work for each team member as what they can do

- One is doing the documentation
- Second is doing the digram and sequins digram for each face of the app
- Third is doing the coding part

3 lietration
Is time for the real work

- each of the team member has to deliver thair work on time
- This stage developers are in need for the scrum master mpre then anyb time

4 release
- A developer while they are working in app or site they should test evry step they go through
- Project was delivered and release after all needed tests are done

For us we did not deploy it at that time because it need ongoing support to make it run as it need

2. Describe the roles and responsibilities in your project for the following roles. **5 marks**

2.1. Scrum Master

- Scrum master
  Is the one who is taking care for the project and should be stik to the plan for arranging meetings and keep teem on track
  We used to have our adviser having meeting for us evry friday for 15 minutes to discus and share our progress

2.2. Product Owner

- Product owner
  Should have knowledg of the market strategy and show thair vison and take the lead of many area of the product

2.3. Developers

- As project devoplors work actively on each phase on the application
- Make our respnsplety complete on time
- Do the documentation

3. Simulate the scrum events for your project and fill the table below with details on a simulated sprint. **5 marks**

Events	Items planned in bullet points.
Sprint Planning	● An event that make the team start of plan and discus thair plan
Daily Scrum	● Short daily meating to discus the team work and plan
Sprint Review	● Fast review for our hard work for designing and developing and so
Sprint Retrospective	● This is to share what we were succeed with douring last sprint and what can be improved
Sprint	● For coding my team mate was having problems so we started to do the coding in pearied of time to get on track

4. Write the definition of done for a sprint just before the first public launch of the software. **5 marks**

- For our work we are exactly finish within 2 weeks before the realse date which was our plan to
- Even checking list of all done work

5. Write the list of items in following sprint artifacts. **10 marks**

5.1. Product Backlog

- New features to make the project neede in the market
- Updates to make it work smoothly
- Bug fixing to have user trust the product

5.2. Sprint Backlog

- Sprint backlogs are made by choosing a task from the product backlog and subdividing it into smaller tasks

5.3. Done Increment

- Done Increment All Scrum Teams must at the very least abide by it because it is a requirement of the organization.

Part-2: Ansible

1. **Ansible basics. 20 marks**
   Write a playbook adhering to the following requirements.
   1.1. Create an inventory file with **AmzLinuxservers** and **Ubuntuservers** groups. Add one server in each of these groups.

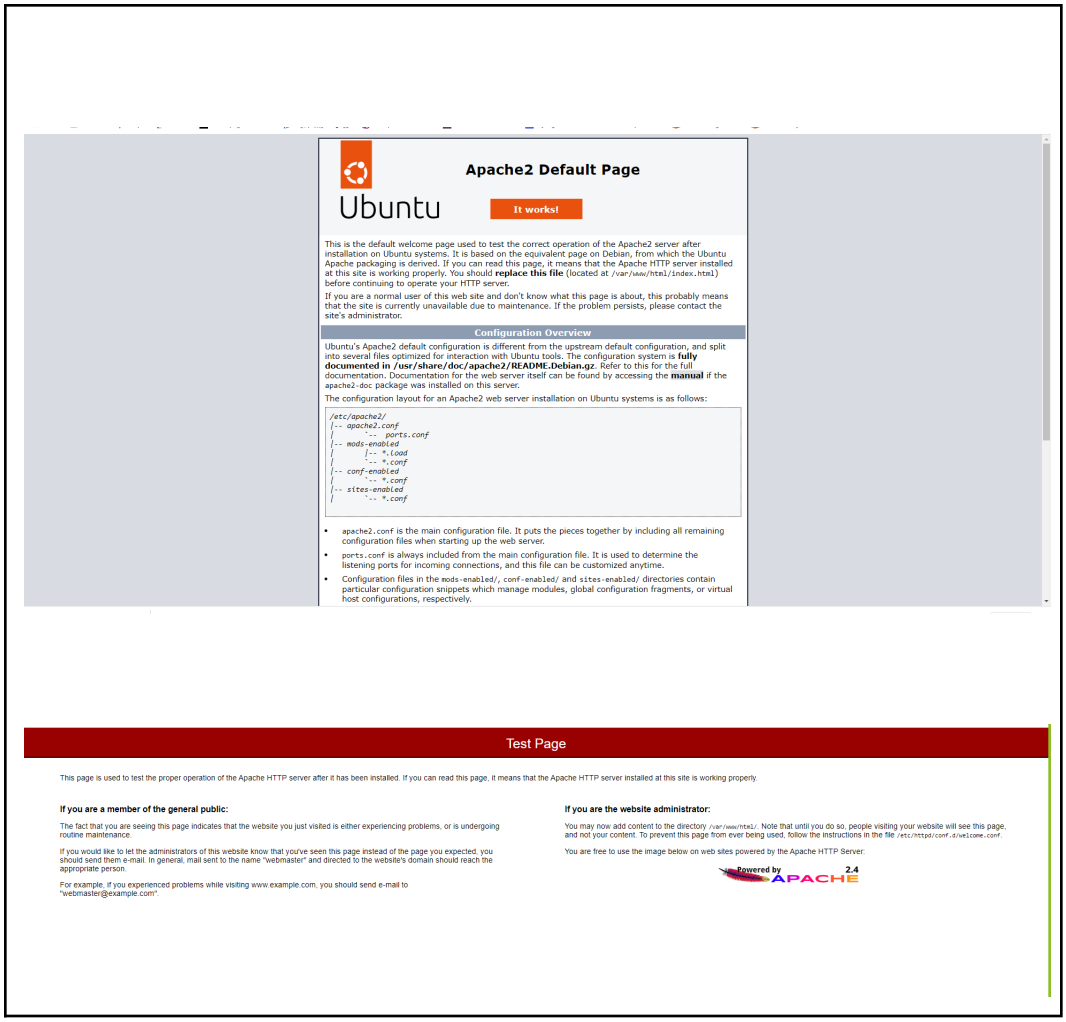
Paste the inventory file. 5 marks

Vi hosts

```
ubuntu@ip-172-31-83-121:~/ansible-workspace$ cat hosts
[amzlinuxserver]
ec2-user@ec2-18-208-110-248.compute-1.amazonaws.com

[ubuntuservers]
ec2-184-73-147-63.compute-1.amazonaws.com
ubuntu@ip-172-31-83-121:~/ansible-workspace$
```

1.2. Create a playbook to perform the following tasks.
   1.2.1. install apache on both the groups.
   1.2.2. Create or copy **index.html** with following content on both the groups.
   <h1>Hello **YOUR-NAME**</h1>
   1.2.3. Install and start apache on both the groups.

Paste the playbook file you wrote. **5 marks**

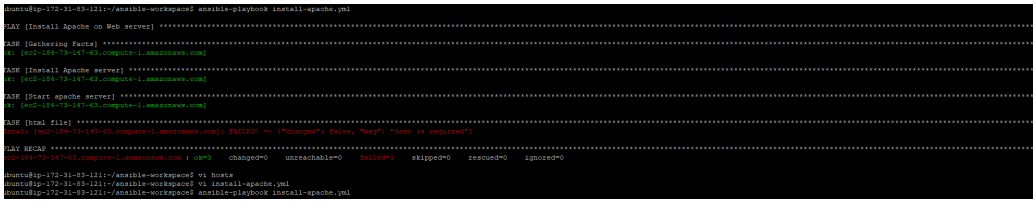


```
ubuntu@ip-172-31-83-121:~/ansible-workspace$ cat copy.yml
---
- hosts: ec2-user@ec2-18-208-110-248.compute-1.amazonaws.com
  become: true
  tasks:
   - name: Install apache in Amazon Linux servers amzlinuxservers
     yum:
      name:
       - httpd
      state: present
      update_cache: yes


   - name: startsing apache
     service: name=httpd state=started enabled=yes
   - name: Set up HTML file
     copy: src=/home/ubuntu/ansible-workspace/index.html dest=/var/www/html/index.html

- hosts: ubuntuservers
  become: true
  tasks:
   - name:  Install apache in ubuntu servers Ubuntuservers
     apt:
      name:
       - apache2
       - php
      state: present
      update_cache: yes
   - name: Ensure apache starts
     service: name=apache2 state=started enabled=yes
   - name: Set up HTML file
     ansible.builtin.copy: src=/home/ubuntu/ansible-workspace/index.html dest=/var/www/html/index.html
ubuntu@ip-172-31-83-121:~/ansible-workspace$
```

```
ubuntu@ip-172-31-83-121:~/ansible-workspace$ cat index.html
<html>
<hl>welcom Bader Alghamdi<hl>
<html>

ubuntu@ip-172-31-83-121:~/ansible-workspace$
```

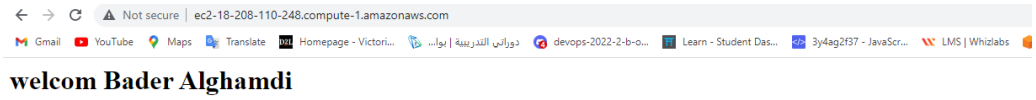
1.3. Paste the screenshot of both the servers with their ip. It should be showing your name **Hello YOUR-NAME**

Write the command you used to run the playbook. **5 marks**



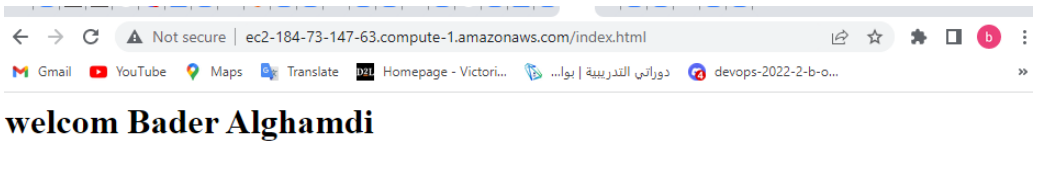
```
ubuntu@ip-172-31-83-121:~/ansible-workspace$ cat index.html
<html>
<hl>welcom Bader Alghamdi<hl>
<html>

ubuntu@ip-172-31-83-121:~/ansible-workspace$
```

Screenshot: AmzLinuxserver with IP address. **2.5 marks**



welcom Bader Alghamdi

Screenshot: Ubuntuserver with IP address. **2.5 marks**



2. Ansible advanced. 25 marks

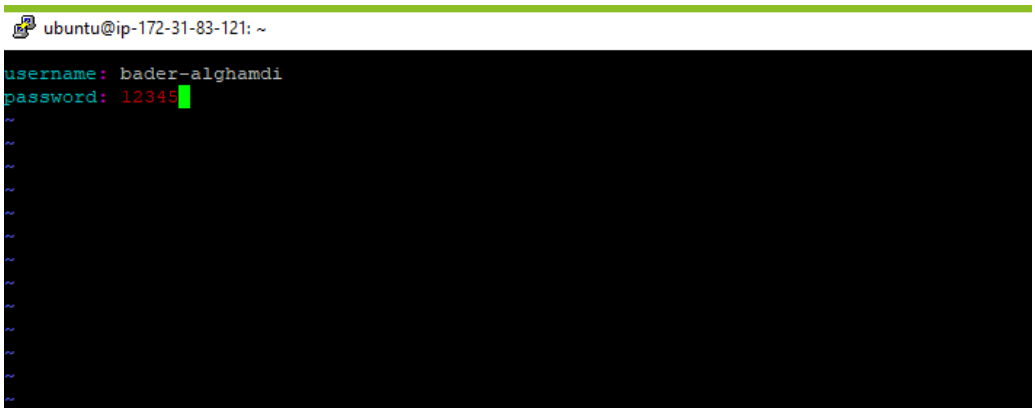
2.1. Create an ansible vault using ansible-vault `secret.yml` and store a username and password in it.

For example:

username: YOUR-NAME*(without space)*
password: @sdf98w4tlkgf *(anything)*

10 marks

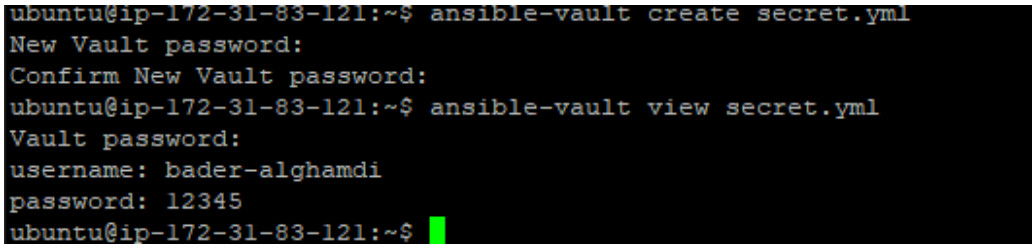
Write the content of secret.yml file



Write the command to create the secret

ubuntu@ip-172-31-83-121:~$ ansible-vault create secret.yml

Show the screenshot of the `ansible-vault view secret.yml` command



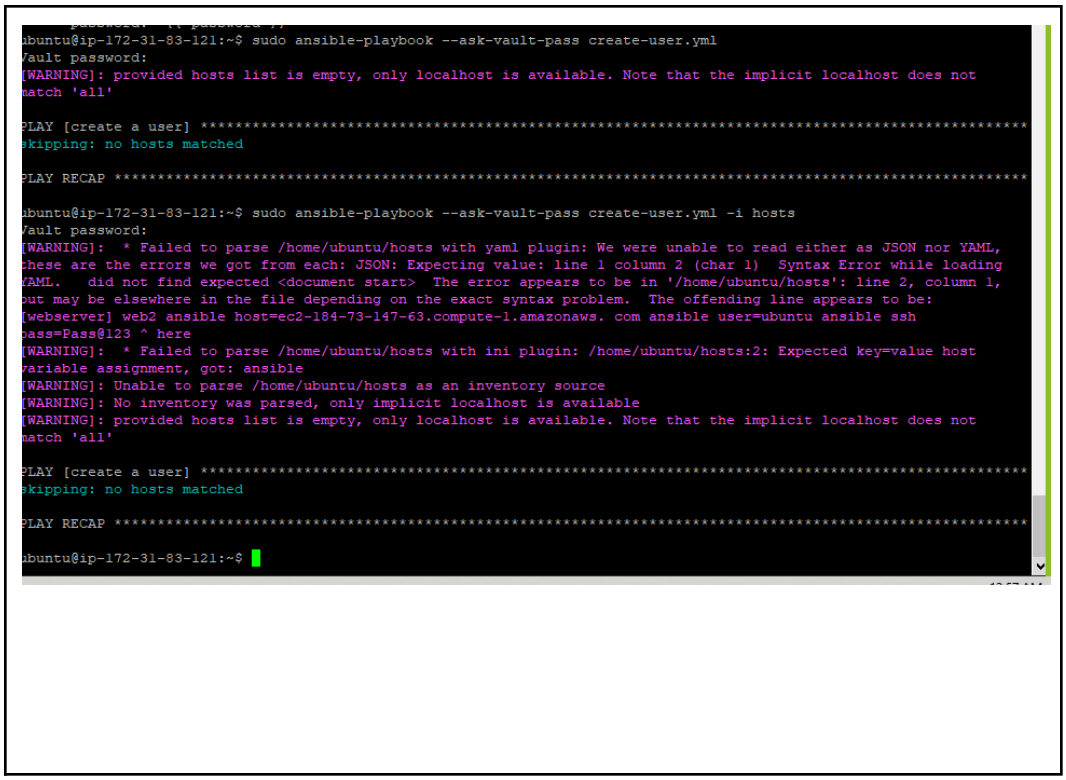
ubuntu@ip-172-31-83-121:~$ ansible-vault view secret.yml

2.2. Write a playbook to create user create-user.yml it should be using the username and password created in the last `secret.yml` ansible vault. **15 marks**

Paste the content of create-user.yml

```
ubuntu@ip-172-31-83-121:~$ cat create-user.yml
---
- name: create a user
  hosts: all
  become: true
  vars_files:
    - secret.yml
  tasks:
  - name: creating user
    user:
      name: "{{ username }}"
      password: "{{ password }}"
ubuntu@ip-172-31-83-121:~$
```

Write the command to create user using create-user.yml and with same inventory file


ubuntu@ip-172-31-83-121:~$ sudo ansible-playbook --ask-vault-pass create-user.yml
Vault password:
[WARNING]: provided hosts list is empty, only localhost is available. Note that the implicit localhost does not match 'all'
PLAY [create a user] ****
skipping: no hosts matched
PLAY RECAP ****
ubuntu@ip-172-31-83-121:~$ sudo ansible-playbook --ask-vault-pass create-user.yml -i hosts
Vault password:
[WARNING]: * Failed to parse /home/ubuntu/hosts with yaml plugin: We were unable to read either as JSON nor YAML, these are the errors we got from each: JSON: Expecting value: line 1 column 2 (char 1) Syntax Error while loading YAML. did not find expected <document start> The error appears to be in '/home/ubuntu/hosts': line 2, column 1, but may be elsewhere in the file depending on the exact syntax problem. The offending line appears to be:
[webserver] web2 ansible host=ec2-184-73-147-63.compute-1.amazonaws. com ansible user=ubuntu ansible ssh
pass=Pass@123 ^ here
[WARNING]: * Failed to parse /home/ubuntu/hosts with ini plugin: /home/ubuntu/hosts:2: Expected key=value host variable assignment, got: ansible
[WARNING]: Unable to parse /home/ubuntu/hosts as an inventory source
[WARNING]: No inventory was parsed, only implicit localhost is available
[WARNING]: provided hosts list is empty, only localhost is available. Note that the implicit localhost does not match 'all'
PLAY [create a user] ****
skipping: no hosts matched
PLAY RECAP ****
ubuntu@ip-172-31-83-121:~$

Verify the user created or not in the group nodes. Screenshot of the output of the command to show users created in the inventory or not.

The command could be similar to this:
ansible all -b -m command -a "grep YOUR-USERNAME /etc/shadow" -i inventory