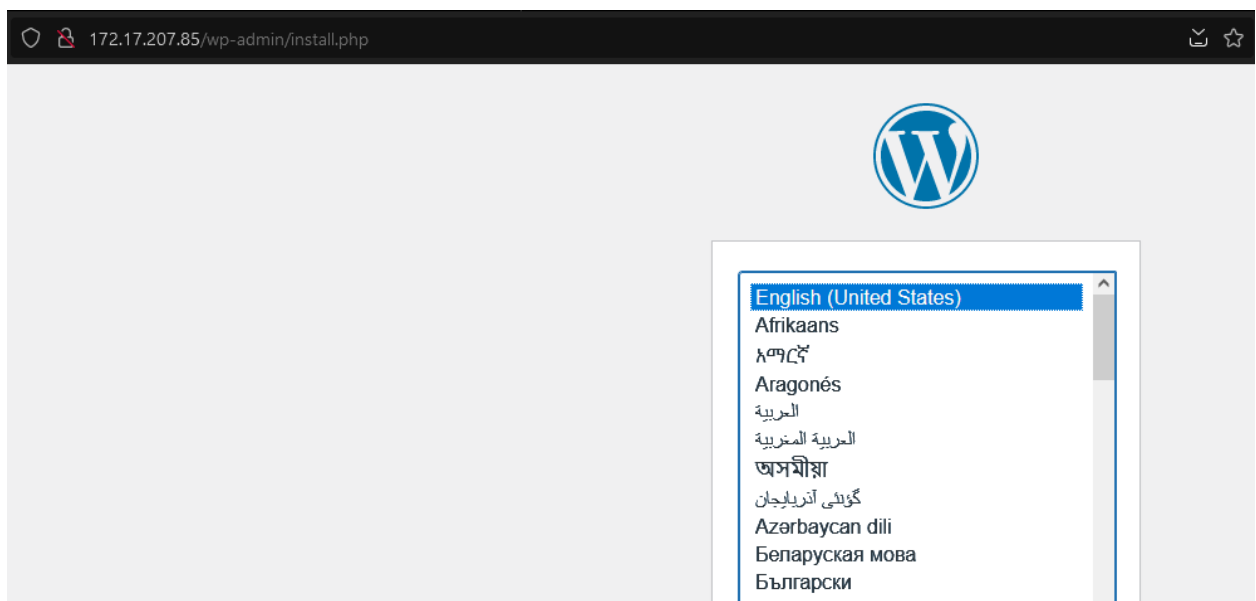


Goal of Homework is to assess knowledge baseline, ability to self study, what candidate considers to be adequate quality of submitted work and overall approach to work. If candidate is not able to finish a step fully, it is not the end of the world. Candidate should finish as much as possible with reasonable amount of effort. If some part of infrastructure is not as requested, but otherwise the work is in good quality, it is better than if everything is working, but code is nonsensical, unreadable, overly complicated etc.

Use whatever tools you deem to be necessary, suggested is Ansible & docker/docker compose, but other approaches are acceptable. Environment to be used is Ubuntu 22.04 or RHEL8/9 clone (pref. Alma Linux). Presume minimal installation of virtual machine running on a personal computer/laptop with root access to the VM and git + ansible installed. If anything else is necessary, please specify when handing in your solution.

Goal is to present automation of following infrastructure in a way where single command is to be entered and after it finishes the full described environment is up and running. Work is to be handed in as code in git repository (sg. free personal github repository, other own repository is also acceptable as long as the code is readily available)

- Firewall should be up and running and only necessary ports should be opened for access from "hypervisor" PC
- Create user xitest with sudo privilege, password set to pasx.123, user needs to be able to login via ssh using password and following ssh keys
  - ssh-ed25519  
AAAAC3NzaC1lZDI1NTE5AAAAIOH/TIOb8TAXiMhN8u7VNqPC7W2hrhygm/1BZBZZp0q
  - marek@GUADALAJARA-WSL
  - ssh-ed25519  
AAAAC3NzaC1lZDI1NTE5AAAAIP7FHrfu37DbzYBs6T3P/aq+XOeJA tu8Ftl1/3g1EN/Ktkuba
- deploy wordpress application in docker - no need to do actual installation of wordpress, just have it ready to do the web part of installation/initiation
  - important parts should be persistent and should be mounted from underlying subsystem,
  - No need to complicate things with https, for practice purposes http is good enough.



*Desired outcome*

- ensure wordpress database is dumped and wordpress website files are backed up each day at 8:00, 16:00 and 24:00 server time.
  - database dump and website files from each backup time should be contained within one archive file, backups from last two days are to be kept, older should be deleted periodically.
- wordpress site is accessible from "hypervisor PC" that the vm is running on.

Ideally I would like to receive link to github repository with viewable history and basic documentation/readme. I will go to my VM with fresh install of system of your choice, clone your repository, run "ansible-playbook xitee-homework.yml" (Include the command or set of commands to deploy the infrastructure in your documentation/readme). After deployment is done, I would view WP installation page via my PC's web browser and VM's IP address. I will then connect to the vm via ssh to the mentioned user using my ssh key and check whether backups are being created as requested.

We will be looking at :

- Code does what we asked for
- Code is readable and understandable, comments are welcomed
- Code is simple and elegant ( There are no unnecessary steps, in case of ansible the code is idempotent and tasks marked as changed are actually changing things on server)
- Overall solution is simple and elegant ( don't use handwritten script where one command is sufficient )
- Finished server is at least somewhat secure ( we are not looking for CIS compliance here, but for basics like "minimal necessary access" )
- Bonus points for using variables/parameters where it makes sense, so the code would be re-usable on more than 1 server
- If some part of infrastructure is missing/incomplete/not perfect, It is not dealbreaker. Overall quality of work is more important than 100% completion