A logo of a cheese head

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| Cheesehead hosting  Process report |
| |  |  |  | | --- | --- | --- | | Author: Group 1 | Date: 21/09/2024 | Version: 1.0 | |

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# Sprint 1

### Work division

* **Daan**: Worked on documentation, set up Jira.
* **Divesh**: Worked on documentation such as the project plan.
* **Jelle**: Worked on the design document and creating the customer portal for the website.
* **Kishan**: Worked on documentation like project plan and communication.

### Group meetings

* 14-09-2023
* 15-09-2023
* 21-09-2023
* 22-09-2023

### Agreements

* Jelle would start working on the front-end, mainly the customer panel so we could start automation next week/sprint.

### Stakeholder meetings

* 14-09-2023
* 20-09-2023

# Sprint 2

### Work division

* **Daan**: worked on documentation. Defined things such as IP-plan etc.
* **Divesh**: Started working on the backend of the web service using flask and integrating login & register pages with the database.
* **Jelle**: Worked the frontend to create a landing page, login & register page. Helped with documentation (Design document, URS) when necessary. I have done some research on how we can let user upload their website without having to redeploy the infrastructure, this resulted into an docker container, atmoz/sftp. I have also created the docker images for the website and database.
* **Kishan**: Worked on project plan and helped with network drawing.

### Group meetings

* 28-09-2023
* 29-09-2023
* 05-10-2023
* 06-10-2023

### Agreements

* After the first MVP delivery we got confronted with the point that we didn’t have a whole lot to show yet besides documentation and a website. We must work a lot more on the automation part in the future 2 sprints for MVP release 2.

### Stakeholder meetings

* 06-10-2023

# Sprint 3

### Work division

* **Daan**: AWS networking (creating VPC’s, Security groups etc.) and NAT instances. Contributed to the terraform script namely the security groups and routing tables. Researched AWS step function.
* **Divesh**: Worked on security features such as password hashing and salting and password policy, along with lambda functions for “forgotten password” features.
* **Jelle**: Worked on API gateway, hosting the deployment website in ECS, worked on the Lambda script to trigger our ansible script. I also worked on some data manipulation using JavaScript so Lambda can work with the send data.
* **Kishan**: Worked on creating the Terraform scripts to deploy the infrastructure.

### Group meetings

* 12-10-2023
* 13-10-2023
* 26-10-2023
* 27-10-2023

**Note**: We also planned daily meetings during the vacation to catch up.

### Agreements

* Divesh would work on the backend of the website duo to traveling.

### Stakeholder meetings

* 26-10-2023

# Sprint 4

### Work division

* **Daan**: Started work on the step function. Configured the Jira environment (ServiceDesk etc.). Researched mailing function for step.
* **Divesh**: Worked on a backend user management system that allows administrators to have an admin dashboard.
* **Jelle**: Worked on the way the variables from the website should be received by Lambda, and how ansible should forward it to Terraform. I also worked on additional features such as connecting an EFS to the database task so all the data will be stored on the EFS and isn’t disposable. I also worked on service discovery for the database to resolve the issue of us having to push a new image to the docker hub every time we redeploy the database.
* **Kishan**: Worked on Terraform, writing the Lambda scripts and helped with the API.

### Group meetings

* 02-11-2023
* 03-11-2023
* 09-11-2023
* 10-11-2023

### Agreements

* The demonstration for Firas went quite well we did have to make a recording of the demo to stay within our time frame.

### Stakeholder meetings

* 09-11-2023 MVP release 2 practice.

# Sprint 5

### Work division

* **Daan**: Completed first version of the step function. Researched credential attachment to the e-mail
* **Divesh**: Halted production of the backend due to some code conflicts between Jelle and I, and
* **Jelle**: Resolved merge conflicts from Divesh version and my own version. Finished the landing page of the website. Updated the API gateway, to now trigger an AWS service and updated the JavaScript accordingly to now send the variables and the StateMachineArn.
* **Kishan**: Worked on Terraform and researched about containers.

### Group meetings

* 23-11-2023
* 24-11-2023

### Agreements

* We will keep working the same way we are doing right now because we have made a good amount of progress since MVP1.

### Stakeholder meetings

* 17-11 MVP2 release.

# Sprint 6

### Work division

* **Daan**: Research on step function e-mail attachment.
* **Divesh**: Researched on how to detect malicious activity using Athena queries and CloudWatch/CloudTrail. Researched on what monitoring service would be better to use for the final case study between Prometheus/Grafana and CloudWatch.
* **Jelle**: Research possible solutions for the ECS issue where we couldn’t retrieve IPs from Fargate. Made a proof of concept of a possible solution.
* **Kishan**: Little bit of research on ECS due to MDP.

### Group meetings

* 30-11-2023
* 01-12-2023
* 07-12-2023
* 08-12-2023

### Agreements

* No agreements made

### Stakeholder meetings

* 07-12-2023

# Sprint 7

### Work division

* **Daan**: Worked on the Jira environment. Finished final version step function.
* **Divesh**: Worked on CloudWatch and CloudTrail to send CloudTrail data to a CloudWatch log group to get metrics in order to make the final dashboard. Created tables for Athena for future querying.
* **Jelle**: Researched the issue where when we would deploy tasks on ECS Fargate we wouldn’t retrieve an IP. Created a possible solution for this issue using EC2 templates containing a specific bash command, also investigated auto scaling for Terraform to spin up those instances.
* **Kishan**: Worked on Terraform in combination with ECS and load balancer in Terraform.

### Group meetings

* 14-12-2023
* 15-12-2023
* 21-12-2023
* 22-12-2023

### Agreements

* No agreements made.

### Stakeholder meetings

* 14-12-2023

# Sprint 8

### Work division

* **Daan**: Worked on documentation, contributed to the Terraform script together with teammates by adding a budget and DNS record. Resolved step function issues.
* **Divesh**: Continued on the Athena query and made an S3 bucket for the Athena query outputs. Scheduled a event to run a lambda function every minute running an athena query to detect a certain threshold of packets sent via potential udp flodding or HTTPS/HTTP to check for ddos attacks and created an alarm to notify if those thresholds are breached. Helped with final documentation.
* **Jelle**: Contributed to the group working together to resolve the EC2 in ECS issue. Updated load balancer configuration so it now has a certificate attached to it. Created a DNS A record so customers get a subdomain that is attached to the load balancer. Created the user manual, Updated design document and various other documents.
* **Kishan**: Finished Terraform and Ansible scripts, helped with final documentation.

### Group meetings

* 03-01-2024 (during vacation)
* 04-01-2024 (during vacation)
* 05-01-2024 (during vacation)
* 8 t/m 12 01-2024
* 15 t/m 19-01-2024

### Agreements

* It is good to have a video for the final presentation because things can go wrong. You can also put a link to the video in your final PDP submission.

### Stakeholder meetings

* 18-01-2024