



INDUSTRIAL TRAINING PRESENTATION

BY CHOK RONG JIE



INTRODUCTION



- Industrial Training in Software Engineering Research Group (SERG)
- Comprised of experienced senior professors and researchers
- Focus on the research of development and maintenance of software systems.

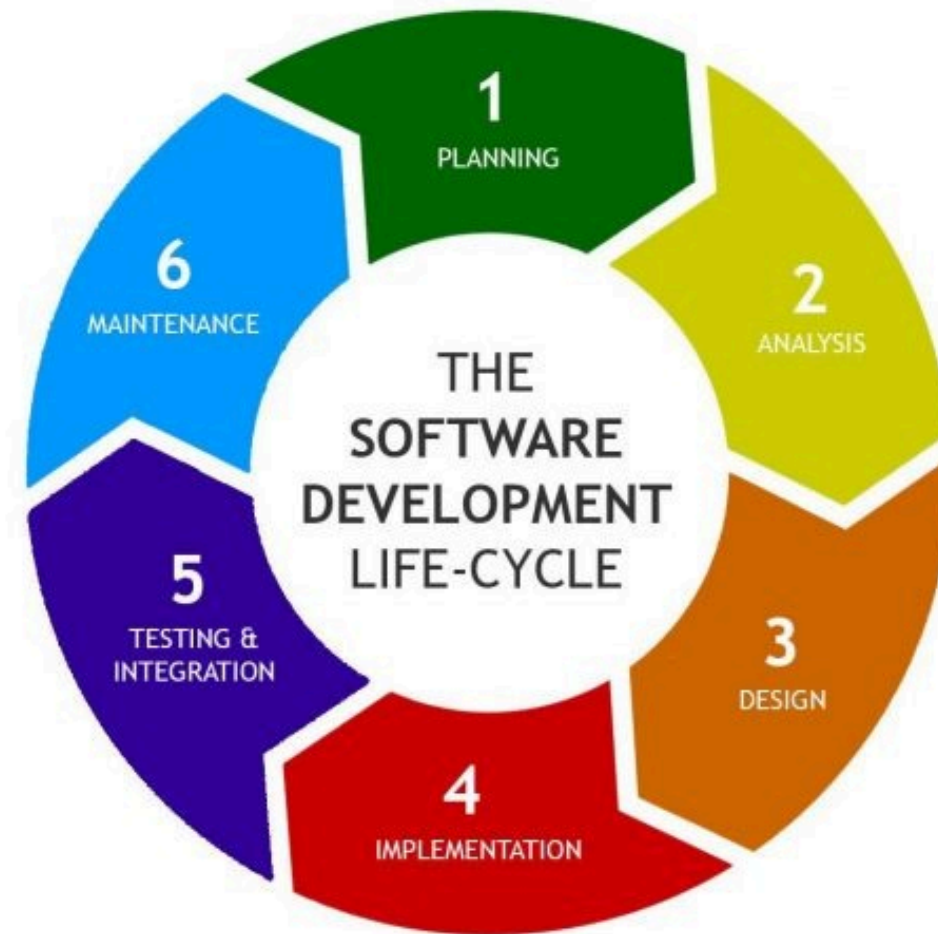
MAIN TASKS



- Elicit requirements for a new dengue surveillance application, Dengue Entomological Surveillance and Prediction (DESaP).
- Plan out the development of the application.
- Developing the modules of the application and other non-functional requirements.



WORK AREA FOCUS ILLUSTRATION



●●● REQUIREMENT ELICITATION

- Read through old documentations provided by supervisors and past developers.
- Note down the major functionalities to be included in the new system.
- More functional requirements are obtained through conversation with supervisors and other stakeholders.

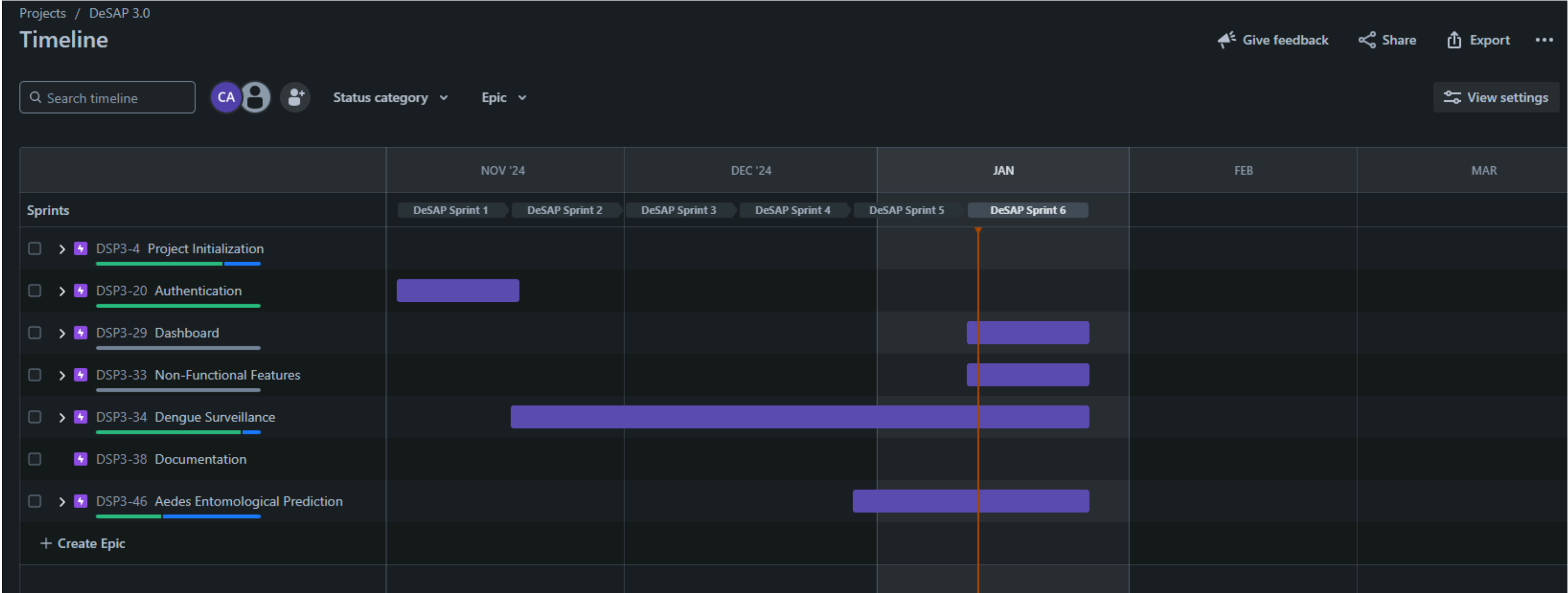
●●● FUNCTIONAL REQUIREMENTS

- Application operable on the web and mobile.
- View Ovitrap data and allow editing through QR Codes.
- Determine Aedes Mosquito Breeding Hotspot and Dengue Outbreak Prediction.
- Dashboard for Aedes Mosquito Entomological Data Analysis.
- Work offline.

DEVELOPMENT PLANNING ●●●

- Jira as the project management tool.
- All development tasks are recorded in a project backlog.
- Development sprints are used to segment the tasks to be completed in two weeks.
- Report progress weekly or biweekly.

DEVELOPMENT PLANNING



● ● ● DEVELOPMENT PLANNING

Projects / DeSAP 3.0

Backlog

CA

Epic ▾

Insights

View settings

Epic

Issues without epic

>

Project Initialization

>

Authentication

>

Dashboard

>

Non-Functional Features

>

Dengue Surveillance

>

Documentation

>

Aedes Entomological Prediction

+ Create epic

DeSAP Sprint 6 13 Jan – 27 Jan (6 issues)

2 4 0 Complete sprint

To complete the Aedes Mosquito Egg and Larvae Counting AI Integration, the Aedes Entomological Prediction module and work on the Dashboard display of DESaP.

<input checked="" type="checkbox"/>	DSP3-47 Historical Mosquito Home Map Page	AEDES ENTOMOLOGIC...	IN PROGRESS ▾	CA
<input checked="" type="checkbox"/>	DSP3-49 View Historical Entomological Data	AEDES ENTOMOLOGIC...	IN PROGRESS ▾	CA
<input checked="" type="checkbox"/>	DSP3-51 Upcoming Outbreak Location Prediction	AEDES ENTOMOLOGIC...	IN PROGRESS ▾	CA
<input checked="" type="checkbox"/>	DSP3-52 Mosquito Egg and Larvae Counting AI Integration	DENGUE SURVEILLANCE	IN PROGRESS ▾	CA
<input checked="" type="checkbox"/>	DSP3-53 Dashboard Display	DASHBOARD	TO DO ▾	CA
<input checked="" type="checkbox"/>	DSP3-28 User Access Level	NON-FUNCTIONAL FEA...	TO DO ▾	CA

+ Create issue

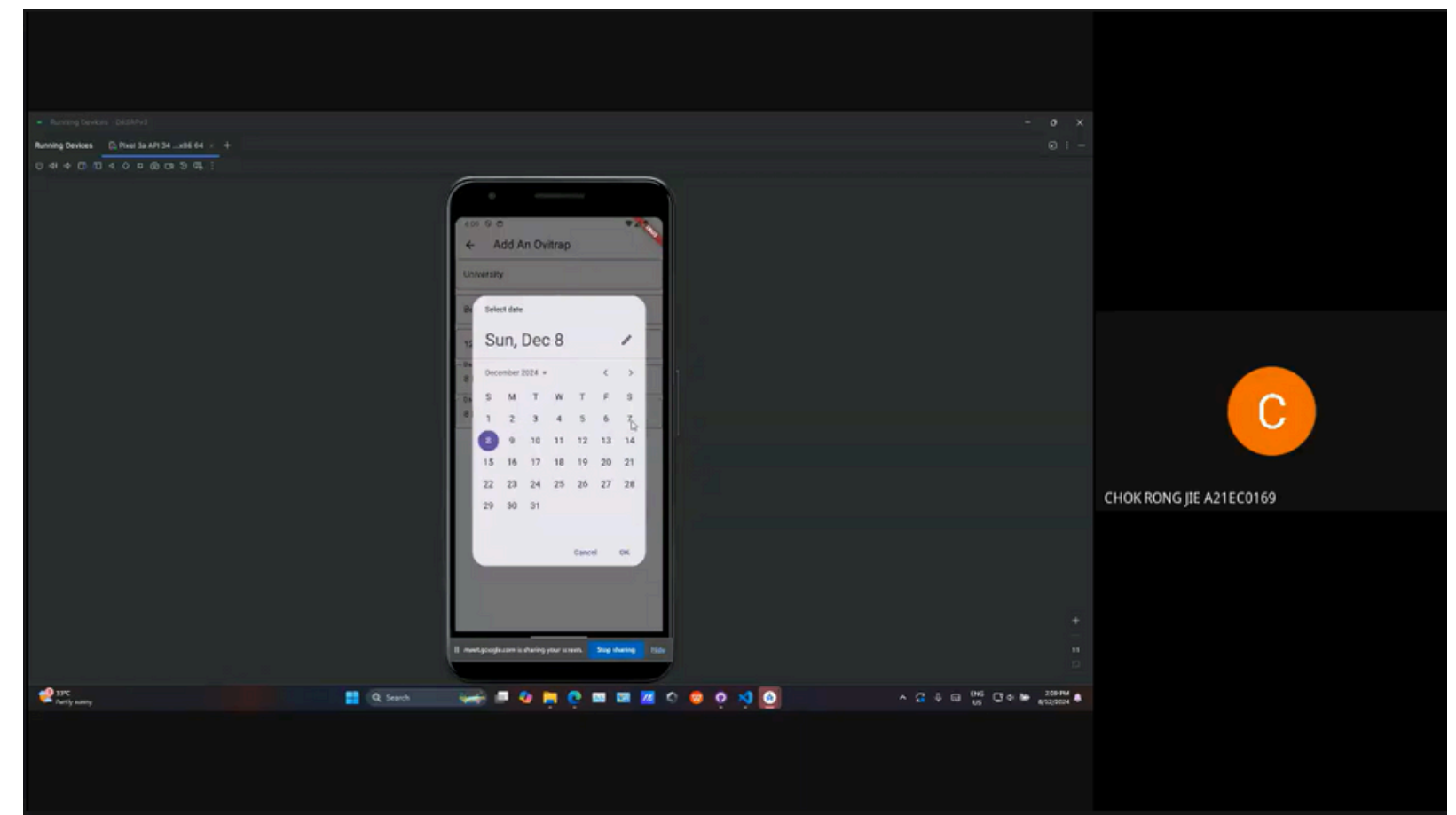
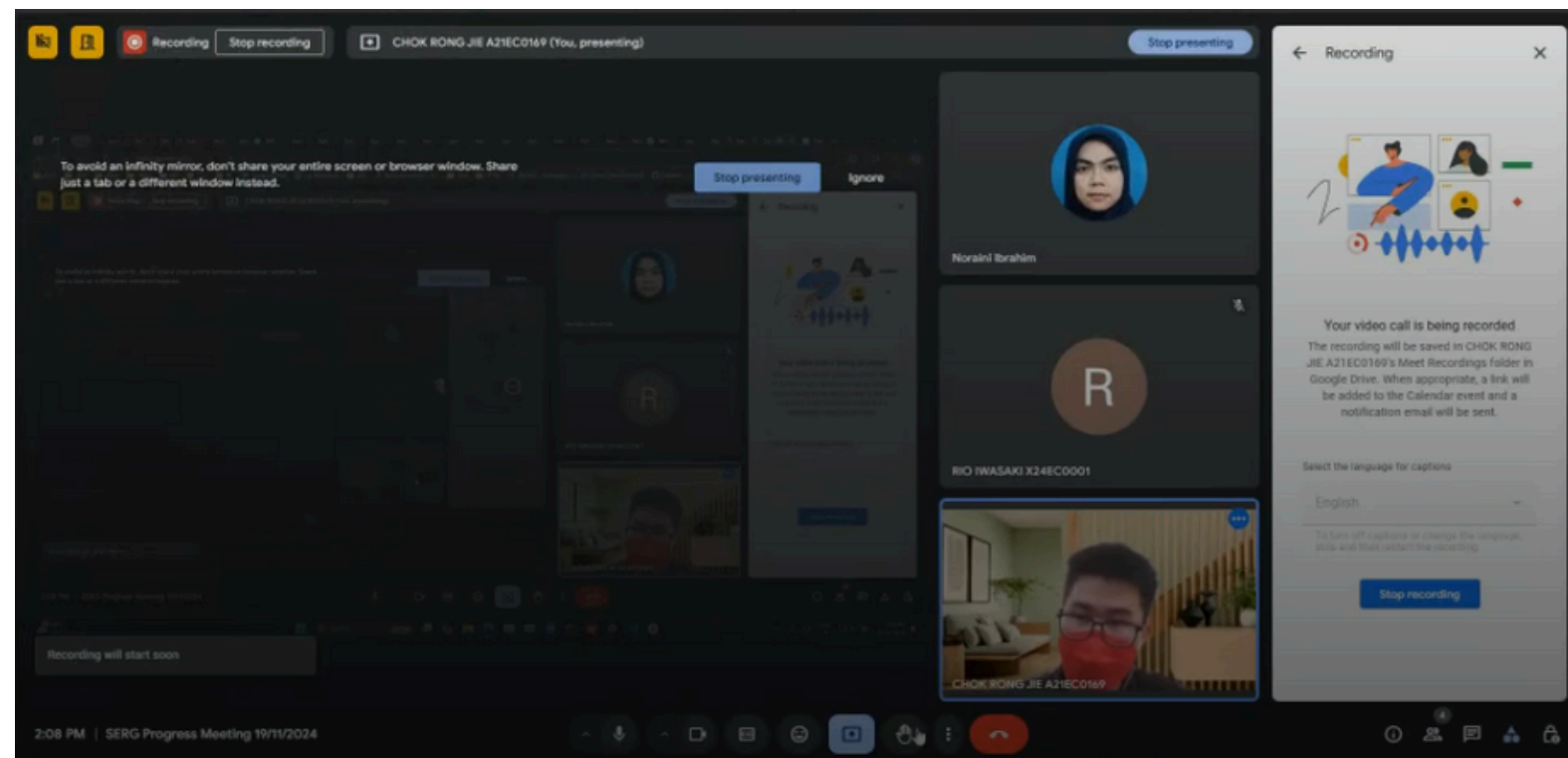
Backlog (4 issues)

2 2 0 Plan on whiteboard TRY Create sprint

<input checked="" type="checkbox"/>	DSP3-10 Ultralytics YOLO Understanding	PROJECT INITIALIZATION	IN PROGRESS ▾	CA
<input checked="" type="checkbox"/>	DSP3-11 OpenCV Understanding	PROJECT INITIALIZATION	IN PROGRESS ▾	CA
<input checked="" type="checkbox"/>	DSP3-26 Alternative Login Methods	NON-FUNCTIONAL FEA...	TO DO ▾	CA
<input checked="" type="checkbox"/>	DSP3-32 Profile Page		TO DO ▾	CA

+ Create issue

●●● DEVELOPMENT PLANNING






DESAP DEVELOPMENT

- DESaP is developed using the Flutter framework.
- DESaP is developed based on modules.
- AI integration and machine learning algorithms are required to be included in DESaP.

DESAP DEVELOPMENT

Authentication Module



DESAP3
DENGUE SURV. APP

Email Address

Password

[Forgot Password?](#)

Login

Don't have an account? [Register Here](#)

← Forgotten Password

Enter your email address to reset your account password

Email Address

Proceed

DESap Devel...

q¹ w² e³ r⁴ t⁵ y⁶ u⁷ i⁸ o⁹ p⁰

a s d f g h j k l

z x c v b n m

?123 , ☺ . ✓

← User Registration

1 Account Information

Email Address

Password

Confirm Password

Staff ID (Optional)

Next

2 Personal Information

DESAP DEVELOPMENT



Dengue Surveillance Module

Mosquito Home Sentinel

County

Member: Committee Status: Okay
Epid Week Inst: 12 Epid Week Rmv: 13
Inst Time: 2024-12-09 05:15:00.000
Rmv Time: 2024-12-10 05:30:00.000

University

Member: Beta Status: Good
Epid Week Inst: 12 Epid Week Rmv: 13
Inst Time: 2024-12-07 12:10:00.000
Rmv Time: 2024-12-09 12:15:00.000

Area

Member: Leader Status: Yes
Epid Week Inst: 14 Epid Week Rmv: 16
Inst Time: 2024-12-07 16:21:49.566
Rmv Time: 2024-12-07 16:21:49.566

Location

Member: Member Status: Status
Epid Week Inst: 9 Epid Week Rmv: 10
Inst Time: 2024-12-07 16:21:49.566
Rmv Time: 2024-12-07 16:21:49.566

Taman

Member: Eplison Status: Good
Epid Week Inst: 34 Epid Week Rmv: 35
Inst Time: 2024-12-02 04:12:56.059
Rmv Time: 2024-12-02 04:13:12.143

Jalan

Member: Beta Status: Broken
Epid Week Inst: 40 Epid Week Rmv: 41
Inst Time: 2024-12-01 07:05:00.000

Mosquito Home Sentinel

County

Member: Committee Status: Okay
Epid Week Inst: 12 Epid Week Rmv: 13
Inst Time: 2024-12-09 05:15:00.000
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Member: Member Status: Status
Epid Week Inst: 9 Epid Week Rmv: 10
Inst Time: 2024-12-07 16:21:49.566
Rmv Time: 2024-12-07 16:21:49.566

Generate Ovitrap QRCode

Taman

Member: Eplison Status: Good
Epid Week Inst: 34 Epid Week Rmv: 35
Inst Time: 2024-12-02 04:12:56.059
Rmv Time: 2024-12-02 04:13:12.143

Delete Ovitrap

Jalan

Member: Beta Status: Broken
Epid Week Inst: 40 Epid Week Rmv: 41
Inst Time: 2024-12-01 07:05:00.000

Edit Ovitrap

Add Ovitrap

Sentinel Info

8zAgndS9LNLO5JaDxMnO

Mosquito Egg Count: 80
Coordinate X: 0.0 Coordinate Y: 0.0
Larvae Count: 40 In Use: No
Cup Status: Collected

URPnUkXAEFTd5Q64WnAc

Mosquito Egg Count: 220
Coordinate X: 1.5612610866788716
Coordinate Y: 103.63603897245672
Larvae Count: 150 In Use: No
Cup Status: Collected

pla3D1Rw8ZCm4yTSHN9c

Mosquito Egg Count: 12
Coordinate X: 1.5628844143210203
Coordinate Y: 103.63496537352951
Larvae Count: 30 In Use: Yes
Cup Status: Collected

Sentinel Info

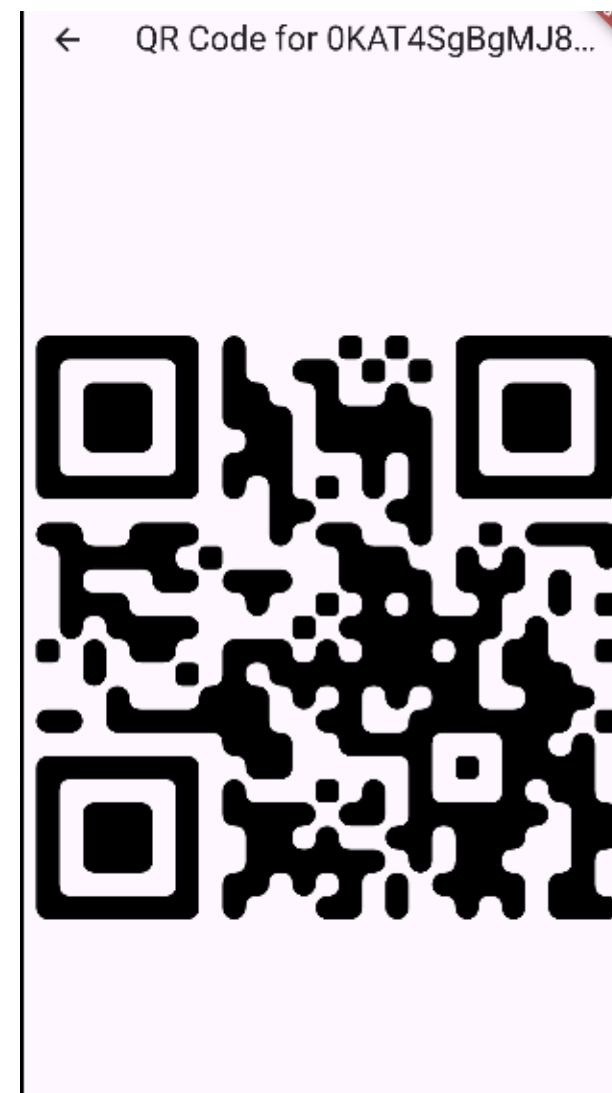
4BowzvwISwyn0f1xl6T1

Mosquito Egg Count: 155
Coordinate X: 1.5628651995786715
Coordinate Y: 103.63494341694921
Larvae Count: 43 In Use: Yes
Cup Status: In Use

DESAP DEVELOPMENT

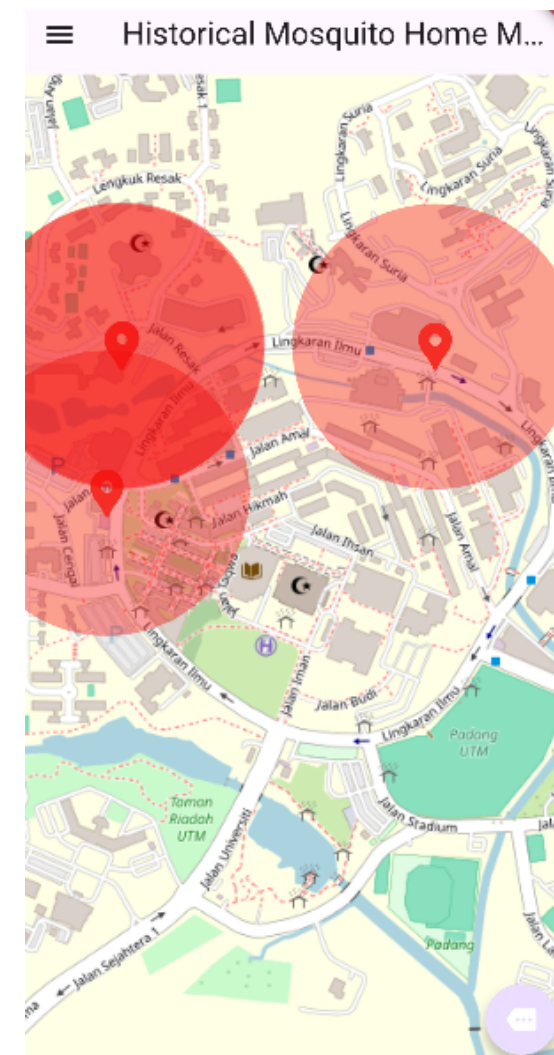


Dengue Surveillance Module



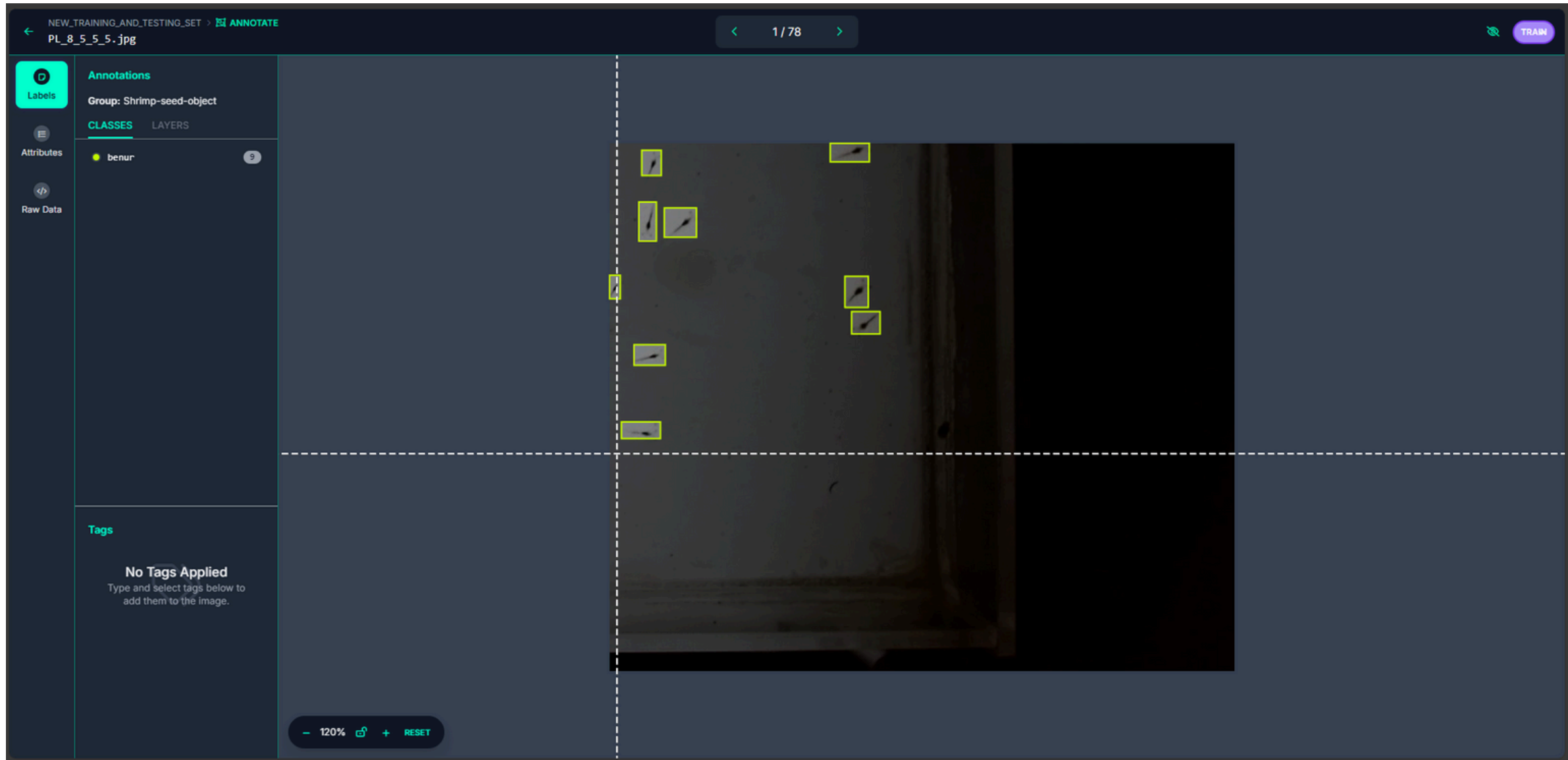
DESAP DEVELOPMENT

Aedes Entomological Prediction Module



DESAP DEVELOPMENT

AI Development



DESAP DEVELOPMENT

AI Development





CONCLUSION

The work experience I obtained in performing my industrial training in SERG trains me in:

- Adapting to unfamiliar technologies.
- Working independently.
- Make decisions more confidently.



End of Presentation.
Thank You.

