



Attack Flow

Retrospective Sprint 4 of Group AttackFlow 10

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What went well in the sprint?

In reflecting on sprint 4, our team's productivity and alignment were evident throughout weeks 9 and 10. Our decision to revisit MITRE's sample attackflows in Week 9 underscored our commitment to build on established benchmarks. This wasn't just a technical exercise; it exemplified our dedication to understanding foundational principles before software execution. The development of the graph visualization page, rooted in previous research, showcased our team's forward-thinking approach. This blend of research and implementation helped us navigate the challenges more efficiently.

Further, our enhancements in admin functions and backend routes aligned seamlessly with our goals of functionality and user experience. It was heartening to see features like annotation and collaboration not just implemented but also refined to perfection. The culmination of the annotation feature—with functionalities like file reading and node relationship establishment—was a testament to our team's technical prowess.

Our responsiveness to challenges was another highlight. By Week 10, we had not only fixed notable bugs like the schema foreign key issue but also furthered our software's features. As end-of-semester pressures loomed, our strategic focus on refining existing features, instead of just adding new ones, was a smart move, reinforcing our commitment to quality over quantity.

What could be improved?

Looking back on sprint 4, several areas stand out where improvement is paramount. Foremost is our alignment with client expectations. The feedback highlighted that while we made significant advancements like the intricate graph visualization and annotation enhancements, overlooking the timely completion of a primary feature they anticipated created ripples in our project trajectory. This omission not only shifted our internal targets but also cast a shadow on our team's spirit and pace.

From a technical perspective, our focus on graph visualization and backend development showed promise, but balancing this with client priorities is crucial. For instance, our strides in creating the annotation side menu or fixing schema foreign key bugs, though noteworthy, should parallelly align with client-preferred functionalities to prevent any disparity.

Furthermore, the pressing academic demands on several team members posed challenges, with many of us finding it hard to maintain project commitments. This delicate balance influenced our software development pace, as evidenced by delays in functionalities like incident report annotation. Going forward, enhancing communication, setting clear priorities, and managing time better will be pivotal. This would ensure that both our technical advancements and process efficiency harmonize with client and team aspirations.

What will the group commit to improve in the next sprint?

In our next sprint, our primary focus will be on the efficient rollout of the annotation tool. Recognizing its importance and addressing past delays, we aim to ensure that its implementation aligns more closely with both user and client expectations. To streamline our development process, we're introducing structured daily stand-ups. These sessions will serve as regular touchpoints to keep the team aligned, monitor progress, and swiftly tackle any challenges. This step is expected to enhance workflow efficiency and maintain clear communication amongst all members.

Furthermore, we're establishing weekly feedback sessions. This proactive measure is aimed at strengthening team unity and fostering an environment where members feel valued, heard, and involved. These sessions will serve as platforms for team members to voice concerns, address potential roadblocks, and collaboratively brainstorm solutions. With the project presentation nearing and time running out, our emphasis will shift towards refining and finalizing our existing features to ensure a compelling showcase for the client. Our overarching goal, through these targeted improvements, is not only to enhance the technical facets of our software but also to refine our software development approach, ensuring it remains agile, client-centric, and goal-oriented.

Comment on your progress this sprint

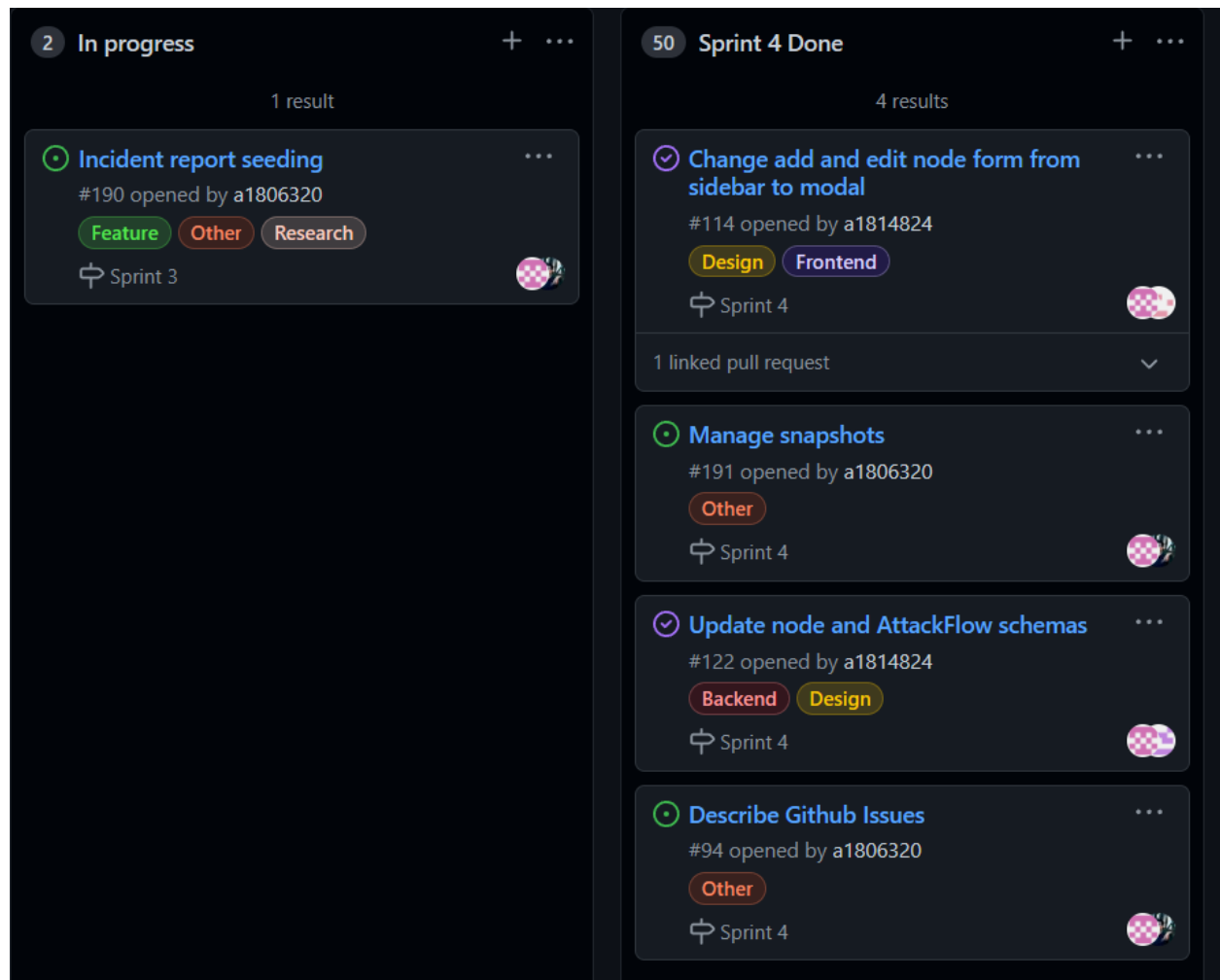


Image 1: Issues for Sprint 4

Sprint 4 was a culmination of relentless dedication and technical intricacy. Among the pivotal tasks I undertook, the continuation of incident report seeding was foremost. This wasn't just about feeding data; it involved a deep understanding of the software architecture and ensuring that our application could reliably and efficiently process the input for testing. The evolution of this feature demonstrates our commitment to laying a robust foundation for our product.

In collaboration with a teammate, we took on the challenge of reimagining the edit note functionality. Transitioning it from a sidebar to a modal required not only technical expertise but also an eye for user experience. This move enhanced the application's intuitiveness, making user interactions more streamlined and purposeful.

Managing the snapshots for sprint 4 demanded a blend of organizational skill and project foresight. This responsibility emphasized my commitment to ensuring our team remained on track and that our sprint objectives were clear and achievable.

The tasks involving schema updates, particularly for nodes and AttackFlow, were especially intricate. Partnering with a teammate, we delved into the underpinnings of our system, making necessary adjustments to align with the evolving software requirements. This effort was testament to our dedication to building a scalable and efficient system.

Lastly, clarifying and providing context to several GitHub issues was a crucial step in ensuring our team's alignment. By detailing out issues and offering a clearer roadmap, we ensured that every team member was equipped with the knowledge to progress effectively.

In summary, Sprint 4 was an exemplar of technical depth and cohesive teamwork. Through meticulous task management and collaboration, we not only addressed the sprint's challenges but also set the stage for continued success.

Snapshots

I attended the sprint review/planning meeting on 22/08/2023 with the tutor.

I attended the sprint review/planning meeting on 05/09/2023 with the tutor.

I attended the sprint review/planning meeting on 17/10/2023 with the tutor.



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Snapshot Week 9 of Group
AttackFlow 10

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Product Backlog and Task Board

7 Product Backlog + ...

• **Approve and Reject Attackflow Project:** ...

As an Admin, I want the authority to approve or reject attackflow projects to ensure that only accurate and quality projects are published and accessible to the user community.

#107 opened by a1806320

User Story

Sprint 4

• **Visualize and Modify the Graph of the Participating Project:** As a Data Annotator, I want to visualize the graph representing the attack flow and have the capability to modify relationships between nodes, links, etc., to ensure the attack flow model is accurate and comprehensible. ...

#106 opened by a1806320

User Story

Sprint 4

• **View Annotation in the Same Project:** ...

As a Data Annotator, I want to view annotations made by other annotators in the same project and identify who created each annotation to maintain clarity and collaboration within the team.

#105 opened by a1806320

User Story

• **CRUD Annotations in Project:** As a Data Annotator, I want to be able to create, read, update, and delete my annotations within a project to ensure that the annotations accurately represent the incident report. ...

#104 opened by a1806320

User Story

Sprint 4

• **CRUD Attackflow Project:** As a Data Annotator, I want to create, read, update, and delete attackflow projects that I have access to, so that I can manage and refine the documentation of cyber attack sequences. ...

#103 opened by a1806320

User Story

• **Invite People to Become Annotators:** ...

As a Data Annotator, I want the ability to invite colleagues or other knowledgeable individuals to become annotators so that they can contribute their expertise to the project.

#102 opened by a1806320

User Story

Sprint 4

• **View and Download Approved Attackflow Project:** As a User, I want to be able to view and download approved attackflow projects so that I can understand and learn from real-world cyber-attack models. ...

#95 opened by a1806320

User Story

Sprint 4

Image 1: Snapshot 4.1 Product Backlog

AttackFlow 10									
Updated 10 hours ago									
<div>Product Backlog</div> <div><div>Approve and Reject Attackflow Project As a Data Annotator, I want the authority to approve or reject AttackFlow projects to ensure that only accurate and quality projects are published and accessible to the user community. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Visualize and Modify the Graph of the Attacking Project As a Data Annotator, I want to visualize the graph representing the attack flow and have the capability to modify relationships between nodes, links, etc., to ensure the attack flow model is accurate and comprehensive. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>View Annotations in the Same Project As a Data Annotator, I want to view annotations made by other annotators in the same project and identify who created each annotation to maintain clarity and collaboration within the team. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>GitHub Annotations in Project As a Data Annotator, I want to be able to create, read, update, and delete my annotations within a project to ensure that the annotations accurately represent the incident report. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>GitHub Annotations in Project As a Data Annotator, I want to be able to create, read, update, and delete my annotations within a project to ensure that the annotations accurately represent the incident report. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>GitHub Annotations in Project As a Data Annotator, I want to be able to create, read, update, and delete my annotations within a project to ensure that the annotations accurately represent the incident report. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>	<div>To do (List of all Tasks)</div> <div><div>Manage snapshots #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>GitHub Actions CI/CD #10 opened by #B14032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Prototype Deployment #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Function To Map Standardized Data Format #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>DB Transactions #10 opened by #B07053</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>	<div>Sprint Backlog</div> <div><div>Approval request database schema and seeding #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Graph Visualization Page #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Get all approval requests route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Delete approval request route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Visualize AttackFlow and nodes' relationship #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Allow user update highlight #10 opened by #B14032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Allow user delete highlight #10 opened by #B14032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create approval request backend route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Update approval request backend route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Approve or Reject Approval Request Route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Get all created approval requests backend route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Delete relationship in attackflow route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Write test cases for PDF Viewer and Highlights #10 opened by #B14032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>	<div>In progress</div> <div><div>Change add and with node form from sidebar to modal #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Update form input fields according to node type #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Refactor PDF Viewer and Highlight components code #10 opened by #B07057</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Implement citation feature #10 opened by #B07057</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Incident report seeding #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Describe GitHub issues #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>	<div>Done</div> <div><div>Sever Problems in Docker #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Update relationship in attackflow route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Implement Delete Cascade in Database #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Fix Foreign Key in Schema Bug #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Delete Collaborations #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Add Collaborations #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create AttackFlow Project As a Data Annotator, I want to update backend reports and initiate a new attackflow project to start documenting and visualizing cyber attack models. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>File Upload for project file #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Add another test case for creating relationship in the relationship route #10 opened by #B07053</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create home page to introduce attackflow #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Allow navbar protected and unprotected mode #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>	<div>Sprint 3 Done</div> <div><div>Annotate (Highlight, Link New Node) As a Data Annotator, I want to highlight relevant information in the incident report. I will create a new attackflow route so that I can mark the key details that should be captured in the attack flow model. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Fill Out the Node Information As a Data Annotator, I want to be able to fill out detailed information for each node so that specific aspects of the attack can be clearly understood and documented. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>After database to support document version control #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>File Viewer Page #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Project & PDF Annotation Linking #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create node by highlighting #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Attack Flow Visualizations Design #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Upload File Page Section #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Navigation Bar Design #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Configure Auth0 and backend to save user data to database upon registration #10 opened by #B07053</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Fix actorflow while saving #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>	<div>Sprint 2 Done</div> <div><div>Log In As a User, I want to log in to the system so that I can access additional features and privileges available to my annotators. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Log Out As a User, after logging in, I want the ability to log out so that I can ensure my account's security and prevent back to user role. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create a New Account As a User, I want to create a new account so that I can participate actively, either as an annotator or admin, based on the permissions granted during account setup. #10 opened by #B06020</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Refresh PDF Viewer page #10 opened by #B07057</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create url from uploaded file to save to database #10 opened by #B07057</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Allow pdf automatically scroll up for each node #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Fix Virus Import Bug #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create testcases for React Routes and Backend Test Component #10 opened by #B07057</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create database automatically on docker compose #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Integrate Auth with backend #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>List Approved Attackflow route #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>	<div>Sprint 1 Done</div> <div><div>Set up Frontend Project Folder #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Set up Backend Project Folder #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Solve CORS Problem Between Frontend and Backend #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Add hooks to create document hooks #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Add hooks to backend #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create Docker Compose File #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Windows Docker Bug #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Update README instructions #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Add react router #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div> <div><div>Create mock backend in frontend #10 opened by #B04032</div><div><div>Close</div><div>Open</div><div>Assign</div><div>More</div></div><div><div>View Story</div><div>Open</div><div>Close</div></div></div>		

Image 2: Snapshot 4.1 Task Board

Sprint Backlog and User Stories

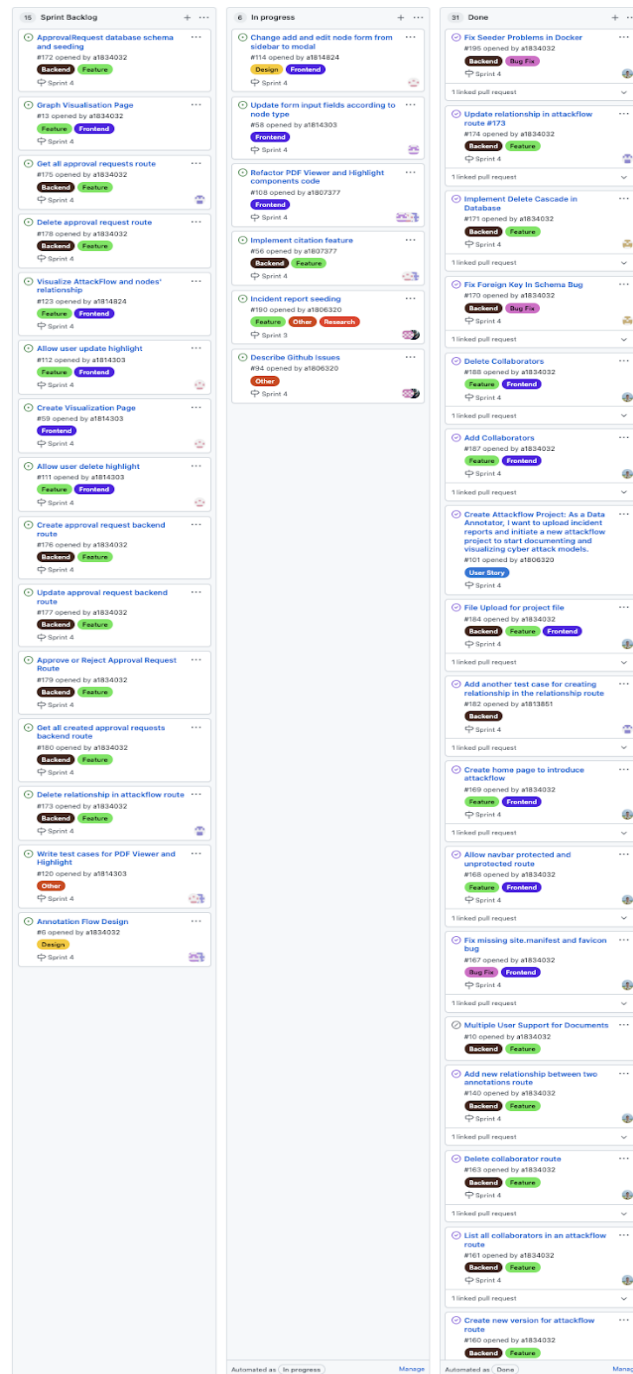


Image 3: Snapshot 4.1 Sprint Backlog

This screenshot depicts the three distinct stages of our sprint backlog: tasks queued in the backlog (Sprint Backlog), tasks currently underway (In progress), and tasks that have been successfully completed (Done).

User Stories of Current Sprint

1. View and Download Approved Attackflow Project: As a User, I want to be able to view and download approved attackflow projects so that I can understand and learn from real-world cyber-attack models.
 - Acceptance Criteria:
 - Given: I am a User visiting the platform and there are approved attackflow projects available.
 - When: I navigate to the list of approved attackflow projects.
 - Then: I should be able to view the details and download the project for my reference.
2. Log In: As a User, I want to log in to the system so that I can access additional features and privileges available to annotators or admins based on my credentials.
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 - Given: I am a User with valid credentials to the platform.
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 - When: I provide the required details to create a new account and submit the form.
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 - Acceptance Criteria:
 - Given: I am a Data Annotator viewing an incident report in the system.

- When: I highlight text and opt to link it to a new attackflow node.
 - Then: The highlighted text should be connected to a new node in the attack flow model.
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 - Given: I am a Data Annotator and have created a new node in the attack flow model.
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 - Given: I am a Data Annotator on the platform's project creation page.
 - When: I upload an incident report and initiate a new attackflow project.
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- Acceptance Criteria:
 - Given: I am a Data Annotator in an existing attackflow project.
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- Acceptance Criteria:

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- When: I perform create, read, update, or delete actions on my annotations within the project.
- Then: The annotations should be created, displayed, updated, or deleted as per my actions.

11. View Annotation in the Same Project: As a Data Annotator, I want to view annotations made by other annotators in the same project and identify who created each annotation to maintain clarity and collaboration within the team.

- Acceptance Criteria:
 - Given: I am a Data Annotator in a project with annotations from multiple users.
 - When: I view the list of annotations.
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12. Visualize and Modify the Graph of the Participating Project: As a Data Annotator, I want to visualize the graph representing the attack flow and have the capability to modify relationships between nodes, links, etc., to ensure the attack flow model is accurate and comprehensible.

- Acceptance Criteria:
 - Given: I am a Data Annotator viewing the attack flow model graph.
 - When: I choose to modify relationships between nodes, add links, etc.
 - Then: The graph should update to reflect these modifications, ensuring the attack flow model is accurate and comprehensive.

13. Approve and Reject Attackflow Project: As an Admin, I want the authority to approve or reject attackflow projects to ensure that only accurate and quality projects are published and accessible to the user community.

- Acceptance Criteria:
 - Given: I am an Admin and reviewing a list of submitted attackflow projects awaiting approval.
 - When: I select a project and choose to either approve or reject it.
 - Then: The project's status should update accordingly. If approved, the project should be accessible to the user community, and if rejected, it should not be published or visible to users.

For detailed insights into the Task Board, Product Backlog, and Sprint Backlog, please [click here](#).

Definition of Done

For our ninth snapshot, our "definition of done" remains divided into two sections: general goals and specific goals. While these largely build upon the foundations set in our first snapshot, they have been expanded to incorporate fresh objectives and other pivotal functionalities that emerged from our recent discussions and user stories.

General Goals:

- **Testing:** All code has undergone rigorous testing and passes all unit tests.
- **Deployment:** The code is successfully deployed to a staging environment, accessible via a public URL.
- **Code Review:** The code has been reviewed, critiqued, and approved by at least one other developer.
- **Feedback Integration:** All feedback from reviewers has been addressed and incorporated.
- **User Experience:** The website provides a seamless experience on both mobile and web platforms, ensuring easy navigation for users.
- **Documentation:** Maintain documentation of project requirements, changes, and decisions. Share this documentation with the client to ensure that both parties have a clear understanding of project scope and goals.

Specific Goals:

- For **Users**:
 - **User Registration:** A potential user should effortlessly register using a unique email address and receive an acknowledgment after successful registration.
 - **User Authentication:** Users must securely log in using their registered credentials and should receive apt feedback for unsuccessful login attempts.
 - **User Logout:** Users should find the logout process straightforward, ensuring their session ends and their data remains secure.
 - **View and Download Approved Attackflow Projects:** Users should easily access, view, and download approved attack flow projects for understanding and reference.
- For **Data Annotators**:
 - **File Upload and Annotation:** Data annotators must be able to upload documents and annotate specific segments within these files without ambiguity.
 - **Attack Flow Integration:** The system should convert annotations from uploaded documents into attack flow models compliant with the MITRE framework.

- **Visualization:** Data annotators should have tools to visually represent any attack flow, ensuring a coherent understanding of sequences and consequences.
- **Validation and Collaboration:** Data annotators should have the capability to collaborate on annotations and employ a version control mechanism to monitor modifications to incident reports.
- **Invite Colleagues:** Data annotators should be able to invite their colleagues to contribute to the platform.
- For **Admins:**
 - **Project Approval/Rejection:** Admins should have the authority to approve or reject attack flow projects, ensuring only quality projects are available for the user community.

Summary of Changes

In this highly productive week, our team was continually making steady progress towards our final goal of developing this attackflow project. Here is the list of our achievements this week:

Incident Report Seeding: This week, we came back to our starting point and studied a few MITRE's sample attackflows reports. The objective was to comprehend and subsequently replicate the visualising results to ensure that in the end, our software can generate visualised outcomes which will align with established benchmarks.

Graph Visualisation Page: We embarked on the development of the graph visualisation page. This task relies on the research conducted in prior weeks and is driven by the chosen library's capabilities.

Admin Functions Enhancement: We have also finished the administration functionalities. With this, admins can now approve projects and make them accessible for broad viewing.

Annotation and Highlight Finalisation: We have also successfully completed the development of the annotation function. This module now includes features like file reading, highlighting, feeding node information via a side menu, and node relationship establishment.

Backend Routes Update: To support the evolving functionalities of our software, we updated the backend routes. New routes catering to functionalities like version control and collaboration were developed. In addition, we have also maintained some existing annotation routes to enhance the robustness of our project.

In summary, our team has made significant achievements in Week 9, especially in functional requirements. Through these developments, we are confident to ensure that our software not only meets but also surpasses the expectations of this course.



Attack Flow

Snapshot Week 10 of Group
AttackFlow 10

Jie Shen Beh (a1834032)
Jian Zhe Chan (a1813851)
Gia Bao Hoang (a1814824)
Marcus Hoang (a1814303)
Guan Chern Liew (a1837053)
Vinh Diem Nguyen (a1838114)
Hoang Nam Trinh (a1807377)
Hung Yee Wong (a1815836)
Jiajun Yu (a1806320)

Product Backlog and Task Board

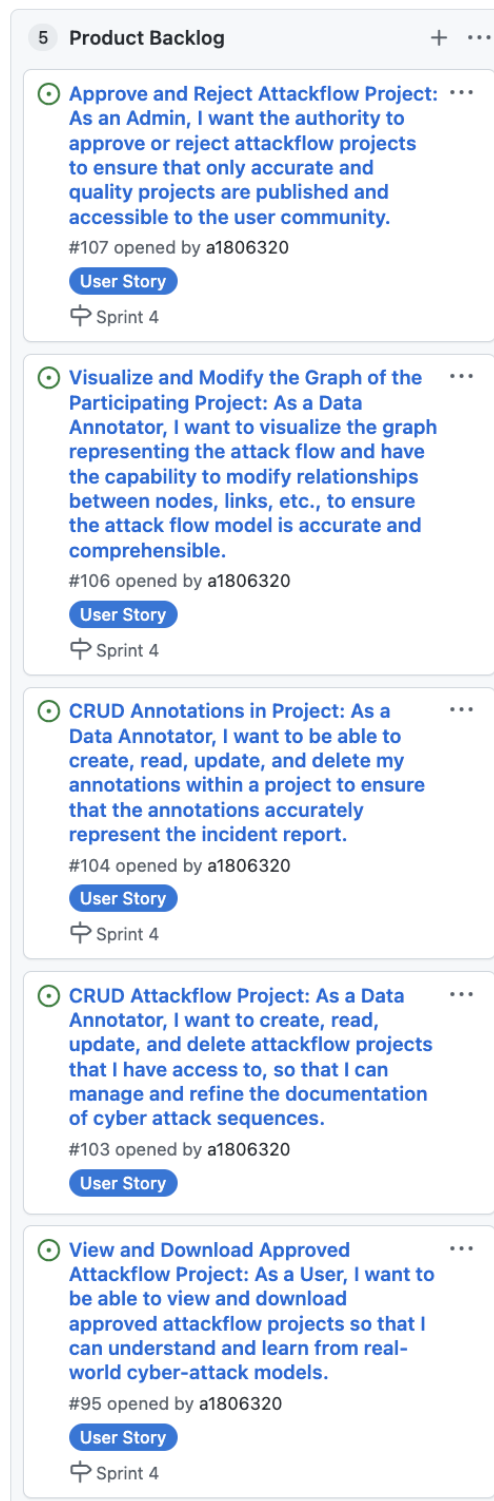


Image 1: Snapshot 4.2 Product Backlog

AttackFlow 10

Updated 2 days ago

Product Backlog

Approve and Reject AttackFlow Project: As an Admin, I want the authority to approve or reject attackflow projects to ensure that only accurate and quality projects are published and accessible to the user community. #173 covered by #B34032

View Story

Sprint 4

Visualize and Modify the Graph of the Participating Project: As a Data Annotator, I want to visualize the graph representing the attack flow and have the capability to modify relationships between nodes, links, etc., to ensure the attack flow model is accurate and comprehensible. #176 covered by #B34032

View Story

Sprint 4

CRUD Annotations in Project: As a Data Annotator, I want to be able to create, read, update, and delete annotations within a project to ensure that the annotations accurately represent the incident report. #178 covered by #B34032

View Story

Sprint 4

CRUD Attackflow Project: As a Data Annotator, I want to be able to create, read, update, and delete attackflow projects so that I can manage and refine the documentation of cyber attack responses. #182 covered by #B34032

View Story

Sprint 2

View and Download Approved AttackFlow Project: As a User, I want to be able to view and download approved attackflow projects so that I can understand and learn from near-world cyber-attack models. #183 covered by #B34032

View Story

Sprint 4

4: To do (List of all Tasks)

Manage snapshots #175 covered by #B34032

Done

Sprint 4

GitHub Actions CI/CD #171 covered by #B34032

Done

Sprint 4

PostgreSQL Deployment #172 covered by #B34032

Done

Sprint 4

Function To Map Standardized Data Format #171 covered by #B34032

Done

Sprint 4

13: Sprint Backlog

Approve/Reject database schema and coding #172 covered by #B34032

Done

Sprint 4

Get all approval requests route #171 covered by #B34032

Done

Sprint 4

Delete approval request route #171 covered by #B34032

Done

Sprint 4

Visualize AttackFlow and nodes' relationship #173 covered by #B34032

Done

Sprint 4

Allow user update highlight #173 covered by #B34032

Done

Sprint 4

Allow user delete highlight #173 covered by #B34032

Done

Sprint 4

Create approval request backend route #175 covered by #B34032

Done

Sprint 4

Update approval request backend route #175 covered by #B34032

Done

Sprint 4

Approve or Reject Approval Request Route #175 covered by #B34032

Done

Sprint 4

Get all created approval requests backend route #175 covered by #B34032

Done

Sprint 4

Write test cases for PDF Viewer and highlight #173 covered by #B34032

Done

Sprint 4

Annotation flow Design #176 covered by #B34032

Done

Sprint 4

8: In progress

Graph Visualization Page #171 covered by #B34032

Done

Sprint 4

Change add and edit node form from sidebar to modal #174 covered by #B34032

Done

Sprint 4

Update form input fields according to node type #174 covered by #B34032

Done

Sprint 4

DE Transaction #176 covered by #B34032

Done

Sprint 4

Refactor PDF Viewer and Highlight components code #178 covered by #B34032

Done

Sprint 4

Implement chatbot feature #178 covered by #B34032

Done

Sprint 4

Incident report seeding #178 covered by #B34032

Done

Sprint 4

Describe GitHub issues #178 covered by #B34032

Done

Sprint 4

42: Done

Create annotation route #170 covered by #B34032

Done

Sprint 4

Get annotation by ID route #170 covered by #B34032

Done

Sprint 4

Delete annotations route #170 covered by #B34032

Done

Sprint 4

View Annotations in the Same Project: As a Data Annotator, I want to view annotations made by other annotators in the same project and identify who created each annotation to maintain clarity and collaboration within the team. #170 covered by #B34032

View Story

Sprint 4

Write People to Become Annotations: As a Data Annotator, I want the ability to invite colleagues or other knowledgeable individuals to become annotations so that they can contribute their expertise to the project. #172 covered by #B34032

View Story

Sprint 4

Create AttackFlow Project: As a Data Annotator, I want to upload incident reports and create a new attackflow project to start documenting and visualizing cyber attack models. #173 covered by #B34032

View Story

Sprint 4

Rewrite annotations list route to include the annotating types #173 covered by #B34032

Done

Sprint 4

Upload folder test found #173 covered by #B34032

Done

Sprint 4

Support One-to-One Bidirectional Relationship for Annotations #173 covered by #B34032

Done

Sprint 4

Delete relationship in attackflow route #173 covered by #B34032

Done

Sprint 4

19: Sprint 2 Done

Annotate (Highlight, Link New Nodes) As a Data Annotator, I want to highlight relevant information in the incident report, link it with a new attackflow node so that I can track the key details that should be captured in the attack flow model. #169 covered by #B34032

Done

Sprint 3

DE Out the Node Information: As a Data Annotator, I want to be able to fill out detailed information for each node so that specific aspects of the attack can be clearly understood and documented. #170 covered by #B34032

Done

Sprint 3

After database to support document version control #169 covered by #B34032

Done

Sprint 3

Create API's list for nodes #171 covered by #B34032

Done

Sprint 3

File Viewer Page #171 covered by #B34032

Done

Sprint 3

Project & PDF Annotation Linking #171 covered by #B34032

Done

Sprint 3

Upload File Page Section #171 covered by #B34032

Done

Sprint 3

Create node by highlighting #171 covered by #B34032

Done

Sprint 3

File Viewer Design #171 covered by #B34032

Done

Sprint 3

Attack Flow Visualization Design #171 covered by #B34032

Done

Sprint 3

Navigation bar Design #171 covered by #B34032

Done

Sprint 3

Configure Auth0 and backend to view user data in database schema. #171 covered by #B34032

Done

Sprint 3

25: Sprint 2 Done

Log In: As a User, I want to log in to the system so that I can access additional features and privileges available to annotations or admins based on my credentials. #166 covered by #B34032

View Story

Sprint 2

Log Out: As a User, after logging in, I want the ability to log out so that I can ensure my account's security and reset task to a user role. #166 covered by #B34032

View Story

Sprint 2

Create a New Account: As a User, I want to create a new account so that I can participate actively, either as an annotator or admin, based on the permissions granted during account setup. #166 covered by #B34032

View Story

Sprint 2

Finish PDF Viewer page #177 covered by #B34032

Done

Sprint 2

Create or from uploaded file to save to database #177 covered by #B34032

Done

Sprint 2

Allow pdf automatically scroll up for each node #173 covered by #B34032

Done

Sprint 2

File Via Import Bug #173 covered by #B34032

Done

Sprint 2

Create testcases for React Routes and BackendTest Component #173 covered by #B34032

Done

Sprint 2

Add react router #173 covered by #B34032

Done

Sprint 2

Create mock backend in frontend #173 covered by #B34032

Done

Sprint 2

Integrate Auth with backend #173 covered by #B34032

Done

Sprint 2

Link Approved Attackflow route #173 covered by #B34032

Done

Sprint 2

16: Sprint 1 Done

Set up Frontend Project Folder #169 covered by #B34032

Done

Sprint 1

Set up Backend Project Folder #169 covered by #B34032

Done

Sprint 1

Solve CORS Problem Between Frontend and Backend #169 covered by #B34032

Done

Sprint 1

Add ready to create pre-render hooks #169 covered by #B34032

Done

Sprint 1

Add MySQL to Backend #169 covered by #B34032

Done

Sprint 1

Create Docker Compose File #169 covered by #B34032

Done

Sprint 1

Windows Docker Bug #169 covered by #B34032

Done

Sprint 1

Update README instructions #169 covered by #B34032

Done

Sprint 1

Add react router #169 covered by #B34032

Done

Sprint 1

Create mock backend in frontend #169 covered by #B34032

Done

Sprint 1

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Sprint 1

Link Approved Attackflow route #169 covered by #B34032

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Sprint 1

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Sprint Backlog and User Stories

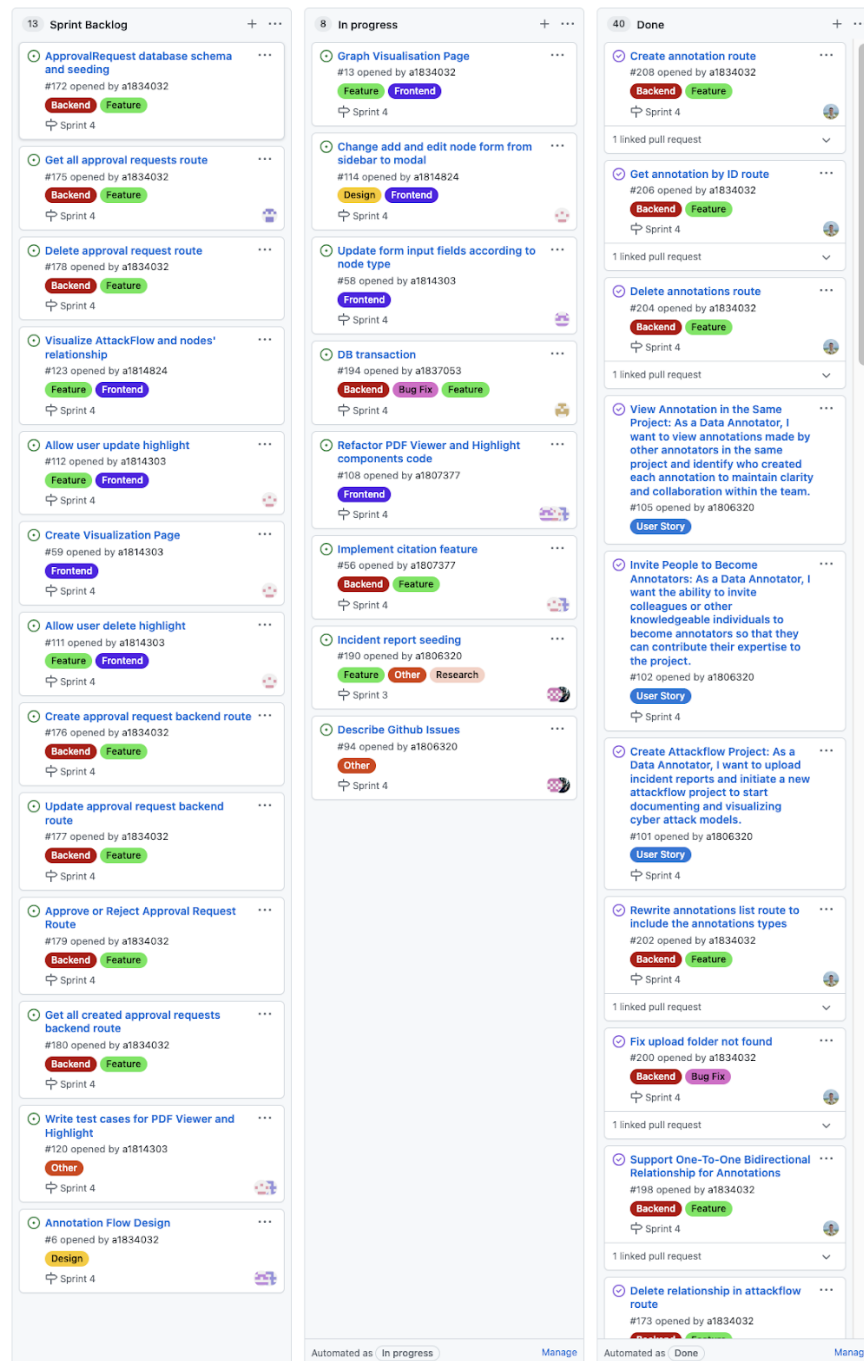


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Summary of Changes

This week marked another progressive phase in our attackflow project journey. As we near the end of the semester, our primary focus shifted to refining and finalising key features, while also introducing new ones that would enhance the usability and functionality of our software. Here's a brief breakdown:

Graph Visualisation: Our team successfully completed the front-end aspect of the graph visualisation, presenting a basic functional graph. With this in place, our energies are now channelled towards developing a robust backend. A significant portion of this phase is to form an intricate schema for nodes within the graph, ensuring they reflect accurate data relationships.

Invitation and Collaboration: The feature enabling users to invite others and collaborate in real-time has reached its final stages. We have wrapped up the primary development and have now shifted our focus to improving the user experience to ensure smooth interactions and easy-to-use interfaces.

Annotation Side Menu: To enhance the clarity of annotations, we have introduced a dropdown list in the side menu. This new addition feature allows users to effortlessly select from different types of nodes, which streamlines the annotation process.

Incident Report Annotation: Our commitment to working on the incident report annotation continues, with dedicated efforts to ensure it aligns with our vision of offering comprehensive and accurate visualisation results for users.

Bug Fixes: To enhance the technical stability of our software, several bugs were identified and addressed. One notable fix was the resolution of an issue about the schema foreign keys, bolstering the reliability of our database relationships.

In essence, this week has been pivotal in shaping our software. With features like graph visualisation moving to advanced stages and collaboration tools being refined, we are approaching closer to a final product that encapsulates our vision and meets user needs.