RMIT UNIVERSITY

SCHOOL OF SCIENCE, ENGINEERING & TECHNOLOGY

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TEAM KAPSTONED

Smart Contract Vulnerability Classification

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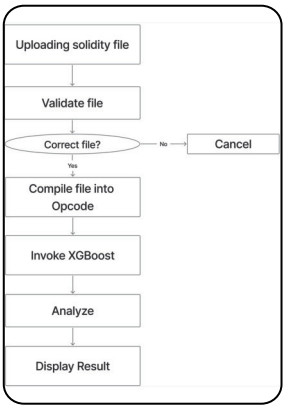
Background & Information

Smart contracts enable decentralized, transparent transactions.
Vulnerable to attacks like Reentrancy and integer errors.
Manual audits are slow and error-prone.
High contract deployment demands automated, scalable audits.

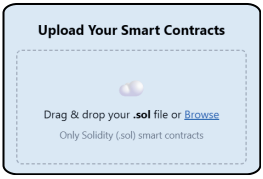
Objectives

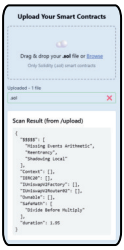
Develop an ML system to detect and classify Ethereum smart contract vulnerabilities.
Achieve ≥85% accuracy across multiple vulnerability types.
Provide a fast web interface for users to upload contracts and get results.
Map findings to the Smart Contract Weakness (SWC) Registry for trust and clarity.

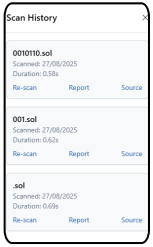
Methodology & Architecture



Results







Conclusion

Our system uses ML on opcodes to detect Ethereum smart contract vulnerabilities, delivering fast, scalable, and user-friendly security with strong real-world accuracy