UM HACKATHON 2025

CHAINITY

BY: TWO PLUS TWO

An **AI-powered, blockchain-enabled, cloud hosted donation app system** that ensures **transparent, automated, and impactful fund distribution** for Waqf institutions, Zakat authorities, and non-profits organisations.

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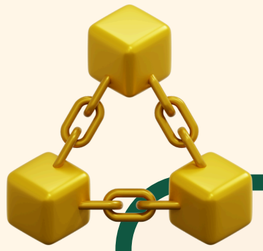
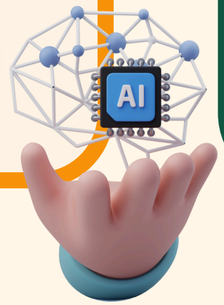
OUR SOLUTIONS



TRACKS DONATIONS SECURELY AND TRANSPARENTLY UTILIZING BLOCKCHAIN

USES GEN AI FOR SMART FUND ALLOCATION



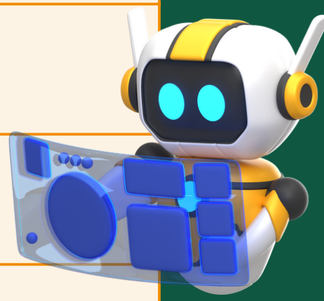
PROVIDES MOBILE-FIRST ACCESS TO ALL USERS

SUPPORTS WAQF, ZAKAT, AND SADAQAH MODULES

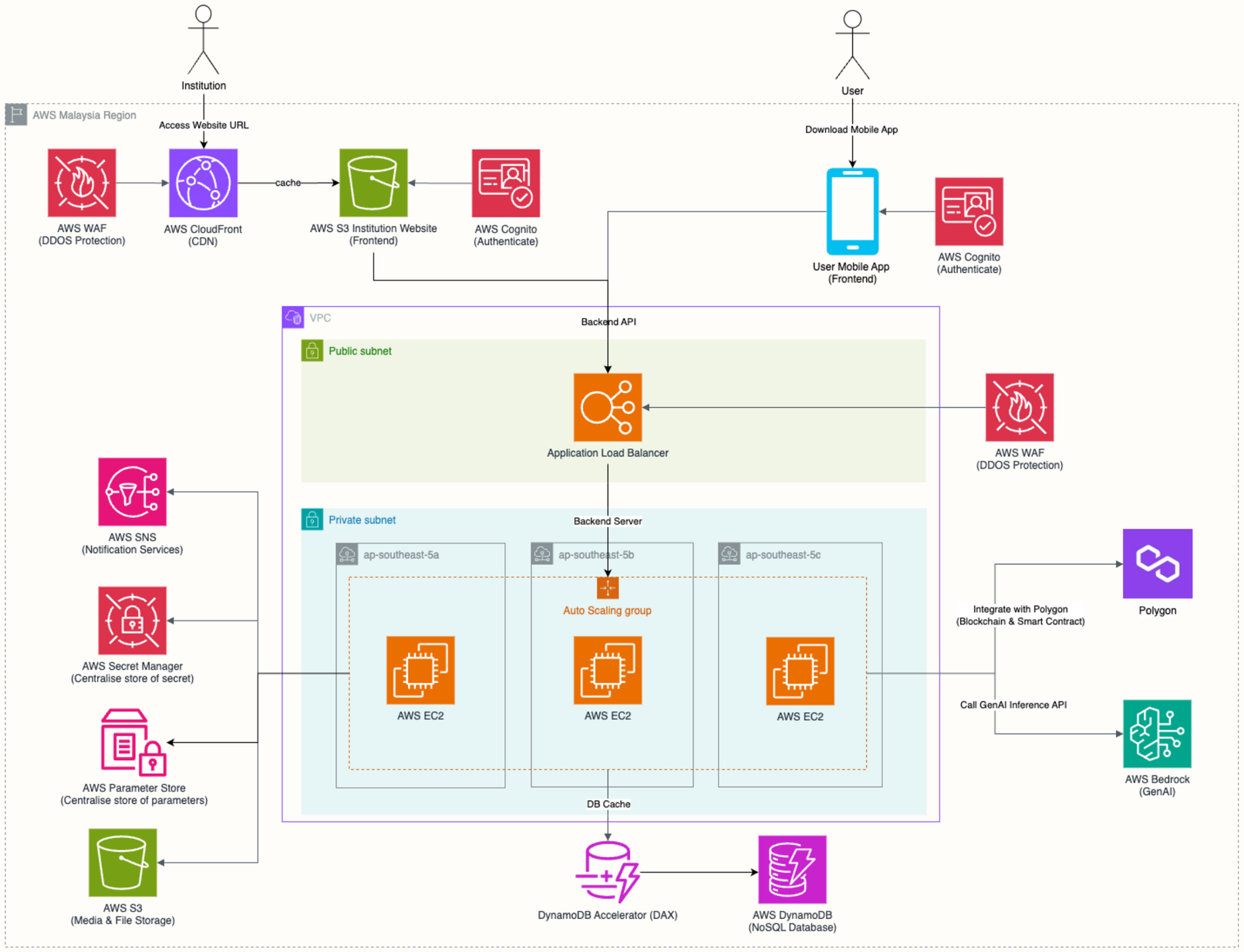
GIVES DONORS REAL-TIME IMPACT VISIBILITY

TECH HIGHLIGHTS

No.	Technology Used	Description
1	Blockchain	Polygon for transparency
2	Gen AI	Auto smart fund allocation & fraud detection
3	Mobile & Web Engineering	High accessibility to users
4	Cloud Native on AWS	High scalability, low latency, and high availability
5	KYC & Security	Verified user profiles and secure transactions
6	Modular API Design	Easily integratable with other institutions (Waqf, Zakat authorities, NGOs) using RESTful APIs.



SYSTEM ARCHITECTURE DIAGRAM



GEN AI INTEGRATION

AI Powered Urgency Assessment & Fund Allocation

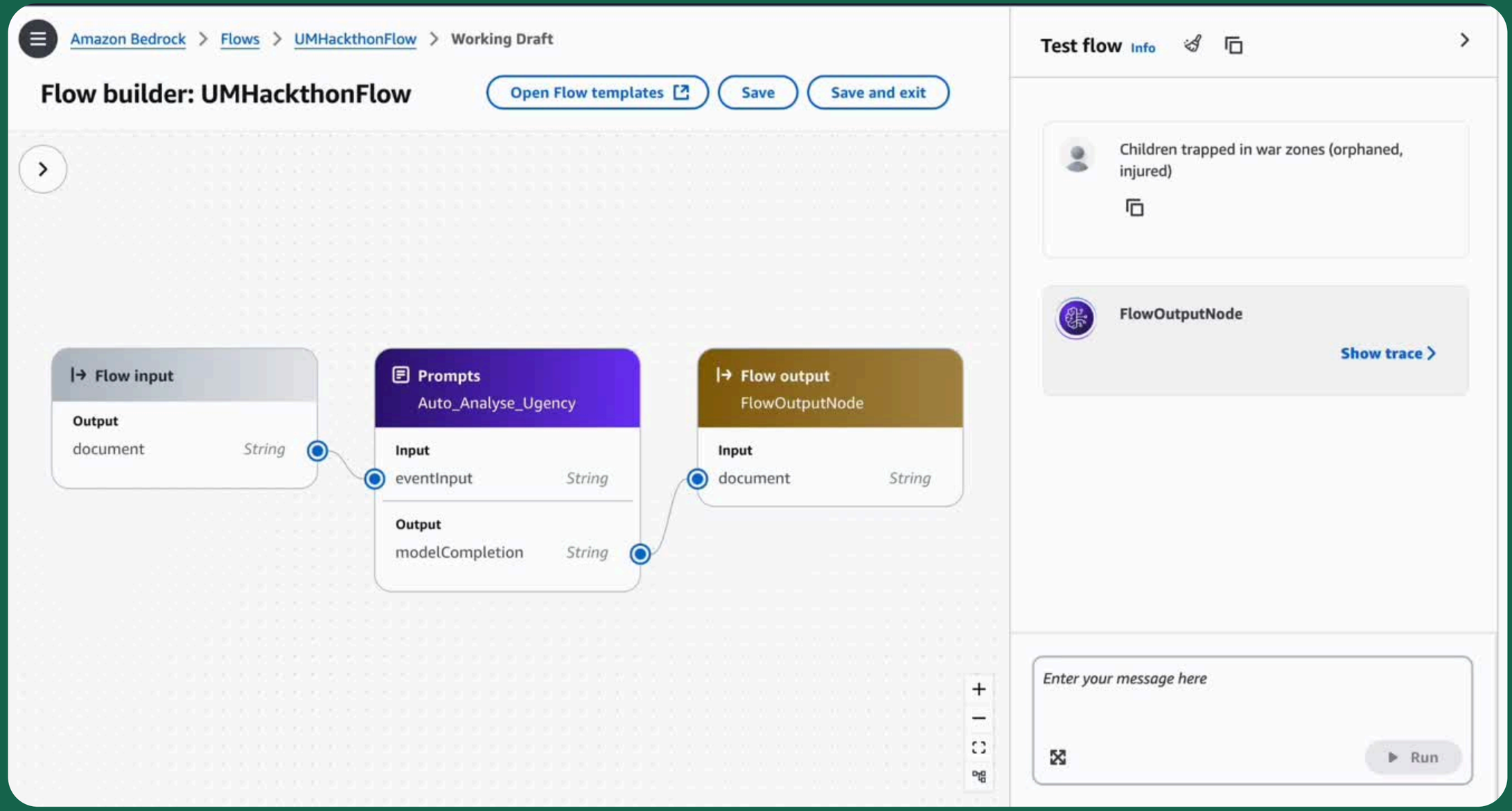
Powered by AWS Bedrock Foundational Model (DeepSeek R1, Claude 3.7 Sonnet)

Analyse crisis events to determine :

- Urgency Percentage
- Urgency Categories
- Fund Allocation Time

Our backend server will sent API to invoke the LLM to make the decision real time and accept the response in a JSON Structured Format that we can later store in our data layer

DEMO


Amazon Bedrock
Flows
UMHackthonFlow
Working Draft
Flow builder: UMHackthonFlow
Open Flow templates
Save
Save and exit
Flow input
Output
document String
Prompts
Auto_Analyse_Ugency
Input
eventInput String
Output
modelCompletion String
Flow output
FlowOutputNode
Input
document String
Test flow Info
Children trapped in war zones (orphaned, injured)
FlowOutputNode
Show trace
Enter your message here
Run

BLOCKCHAIN

No.	Technology Used	Description
1	Polygon (Mumbai Testnet)	Layer 2 Blockchain for scalability
2	Solidity	Programming Language for Smart Contract
3	Hardhat	Smart Contract Framework & Environment
4	Ethers.js and Web3.py	Interact with Smart Contract for JavaScript
5	Metamask	Wallet to sign and send transactions

THANK YOU