“doublecheck” is a solution designed to **combat misinformation** on messaging platforms like WhatsApp, offering a frictionless, rapid, and adaptive fact-checking experience. By integrating WhatsApp’s Business API, users can effortlessly forward messages, images, or links to our bot for real-time verification. The bot promptly informs users about the credibility of the source, leveraging a robust backend system that communicates with both our custom AI service and existing government anti-scam databases, such as GovTech's SATIS.

For empowered users, our web application allows direct input of text, URLs, or images for fact-checking. This platform classifies sources using a pre-trained BERT model, fine-tuned for fake news detection. BERT's bidirectional context processing enables it to grasp the nuances of news articles effectively, making it suitable for identifying misinformation.

Federated learning enables the model to train across decentralized devices without aggregating raw data centrally, thereby preserving user privacy. Each client processes its local data to update the model, and only the updated weights are transmitted to the central server. This approach ensures that sensitive information remains on local devices, significantly reducing privacy risks.

Our system incorporates a community-driven approach where auditors provide decisions supported by detailed notes, including reasons and credible sources. These notes undergo peer review and are rated by fellow auditors to ensure accuracy and quality. This collaborative process enhances the reliability of the information provided to users.

To ensure scalability and efficiency, doublecheck employs containerized microservices with horizontal pod autoscaling. This e allows the system to dynamically adjust to varying workloads.