Architect Challenge

As part of the recruitment process, we would like to evaluate your technical/design skills with a challenge.

Expected deliverables:
- .ZIP file, containing all relevant files, including tests and documentation.
- Short discussion over the phone about your solution.

Problem Statement

An insurance company (Znailla) offers a policy where landlords can have special coverages for their apartments in case a tenant leaves the apartment with damages. In this cases Znailla promises a quick and uncomplicated claims handling process with no lengthy checks. The product is called FlatSharingInsurance and covers damages to property as well as personal belongings.

An in house DataScience team, has been working on an AI solution that is able to identify fraudulent behaviour thus potentially saving large amounts of money. Znailla's board is quite excited about the business opportunity and has asked you to design an architecture that would allow the AI solution to be deployed in production.

Constraints

- Customers submit claims through Znallia's website.
- The AI solution must process a claim in real time.
- All AI solution interactions/predictions must be logged for auditing.
- Processed claims must be forwarded to an agent through Znailla's claims system.
- Claims classified as suspicious are marked as such so that the agent in charge of the process is informed.
- Between 500 and 1000 claims are expected to be processed per day.

Requirements

- Design a solution for the problem described above. Take into account the constraints.
- Draw an architectural diagram of your solution.
- Explain what components/technologies have you chosen and why.
- Describe the plus and cons of your proposal.