IDEA DOCUMENT
code_squad

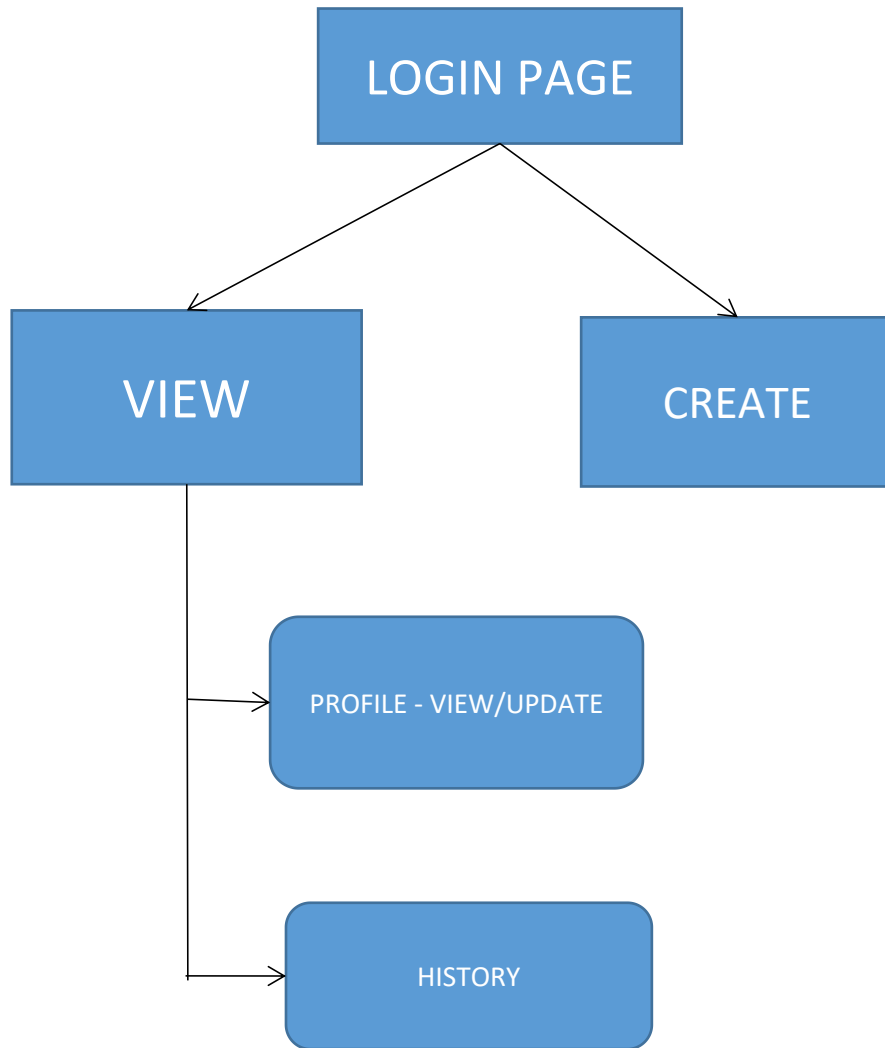Sanjay A.C (22i355)
Saravana Kumar S (22i252)
Thaarugeshwari K.S (22i270)
Vimalathithan D (22i272)

ABSTRACT OF THE PROJECT

a) **Real-Time monitoring and tracking**: The central theme could revolve around providing real-time monitoring and tracking capabilities for airlines. This involves collecting and displaying accurate and up-to-date information about flights, passenger statuses and other operational aspects.

b) **Enhanced Security and safety:** The theme could emphasize the importance of utilizing the system to enhance security and safety measures. This might include features such as passenger identity verification, tracking of potentially hazardous materials, and monitoring of security checkpoints to ensure compliance with regulations.

c) **Data-Driven Decision Making:** A data-driven theme would highlight the system's role in collecting, analyzing, and presenting data to aid airlines in making informed decisions. This could involve tracking passenger preferences, purchasing behavior, and flight patterns to optimize routes, services, and marketing strategies.

d) **Optimized Resource Management:** The theme could focus on using the system to optimize the allocation of resources. To ensure that flights are well-staffed and equipped, leading to higher operational efficiency.

e) **Regulatory Compliance:**The theme could highlight the system's role in tracking and ensuring compliance with aviation regulations and industry standards. By monitoring various compliance requirements, such as passenger documentation and aircraft maintenance schedules, the system can help airlines avoid penalties and maintain a high level of operational integrity.

MAIN IDEA:

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                    │   LOGIN PAGE    │
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                     ↙               ↘
        ┌─────────────────┐    ┌─────────────────┐
        │      VIEW       │    │     CREATE      │
        └─────────────────┘    └─────────────────┘
                 │
                 │    ┌──────────────────────────┐
                 ├──→ │  PROFILE - VIEW/UPDATE    │
                 │    └──────────────────────────┘
                 │
                 │    ┌──────────────────────────┐
                 └──→ │         HISTORY           │
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```

How does Django prevent attacks?

a) **Cross-Site Scripting (XSS) Protection:** Django automatically escapes dynamic content in templates by default, preventing malicious scripts from being injected into web pages. It also provides template tags for explicitly marking content as safe when needed.

b) **Cross-Site Request Forgery (CSRF) Protection:** Django includes built-in CSRF protection to guard against CSRF attacks. It generates and validates unique tokens for each user session, ensuring that only authorized requests are processed.

c) **SQL Injection Prevention:** Django's Object-Relational Mapping (ORM) system handles database interactions and automatically escapes input values to prevent SQL injection attacks. This helps ensure that user input is sanitized before being used in database queries.

d) **Clickjacking Prevention:** Django allows you to set HTTP response headers, including the X-Frame-Options header, which can prevent your site from being embedded in iframes on other domains, reducing the risk of clickjacking attacks.

e) **Authentication and Authorization:** Django provides a robust authentication and authorization system that helps prevent unauthorized access to sensitive resources. It supports user authentication, permission-based access control, and user session management.

REQUIREMENTS

Hardware:

- Processor: Intel i3 5th gen or AMD A4 processor

- Memory: 8GB of RAM

- Hard Drive: 512 GB hard disk

Software:

- Windows 10

- Python interpreter

- Visual studio code

- Git & GitHub

REFERENCES

https://www.google.com/

https://www.youtube.com/

https://www.geeksforgeeks.com/

https://www.stackup.com/

https://www.github.com/