WhereToFly

a Spark-Hibernate Project

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List of content

- Data description
- Project Architecture and Technologies
  - Spark Component
  - Data Loader
  - Prediction Component
- Conclusion and Lesson Learned

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Data Description

- Airlines, from Kaggle
- Airports, from Kaggle
- Flights, from Kaggle
- Transportation_airfare, from transportation.gov

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- **Project Architecture and Technologies**
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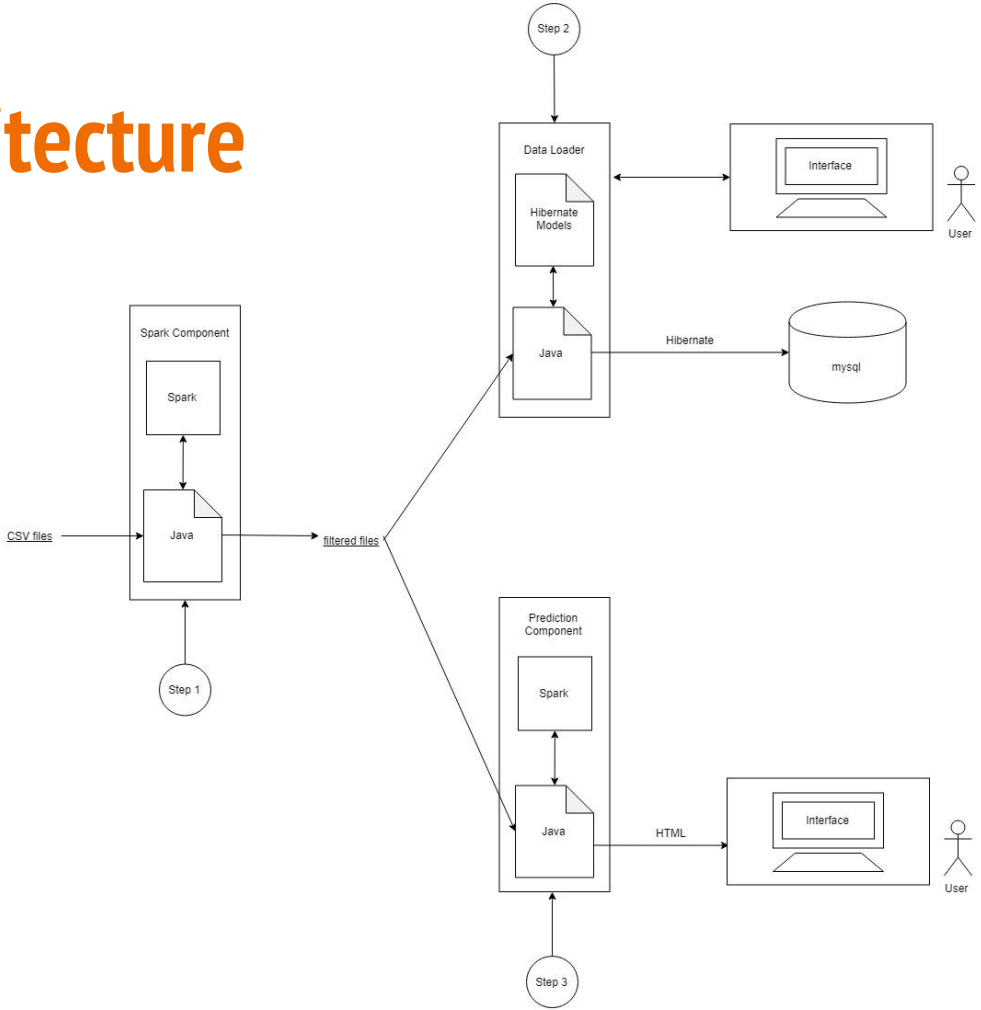
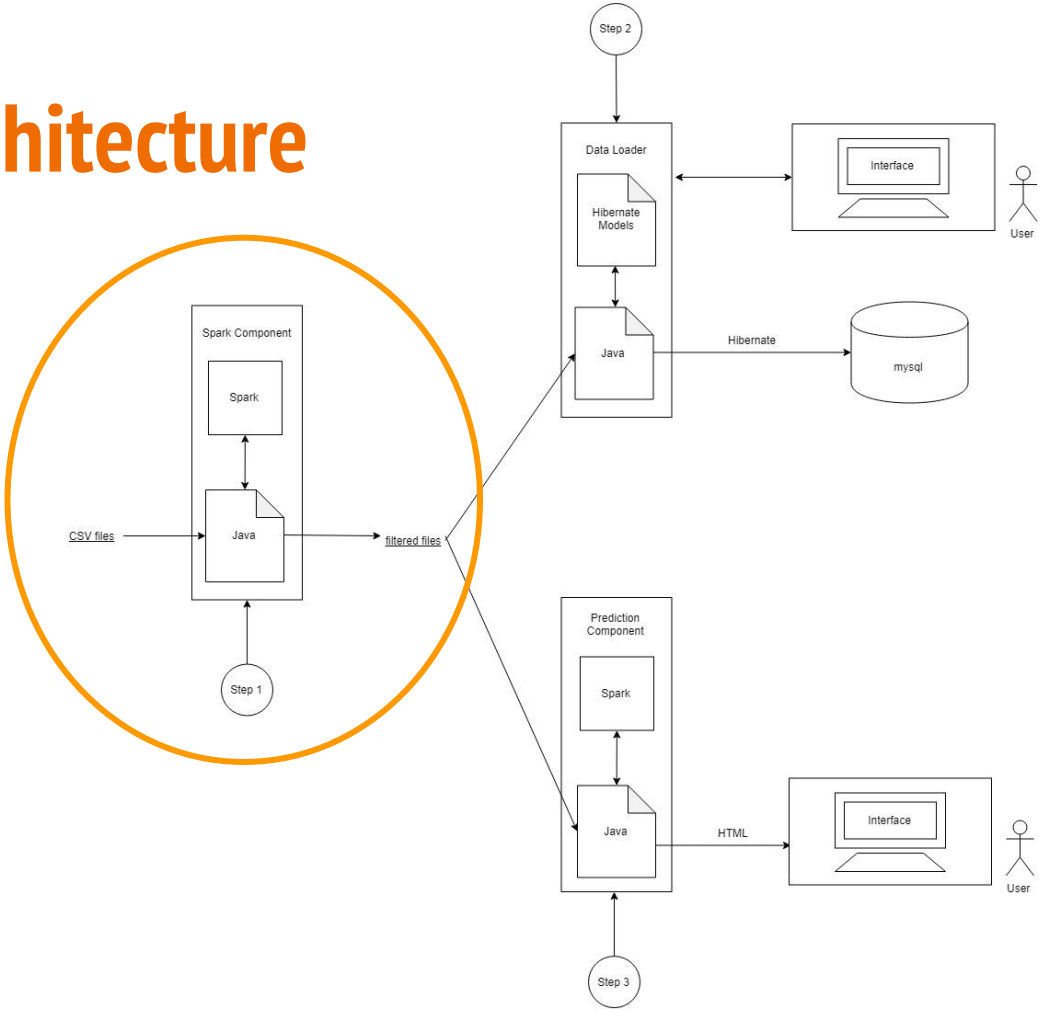
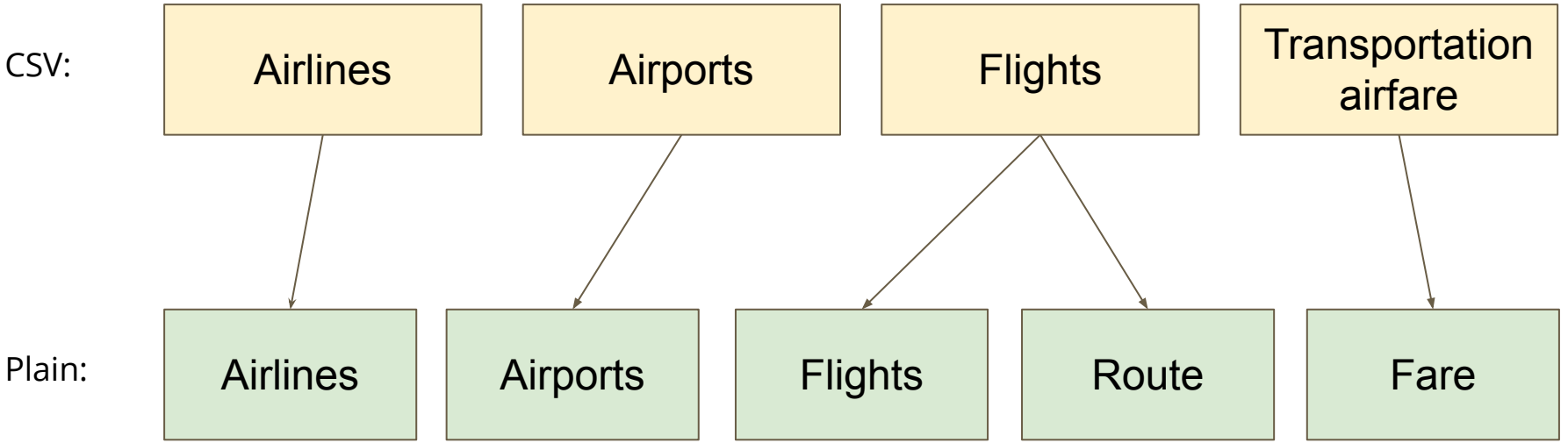
Project Architecture



Project Architecture



Step 1: Spark Component



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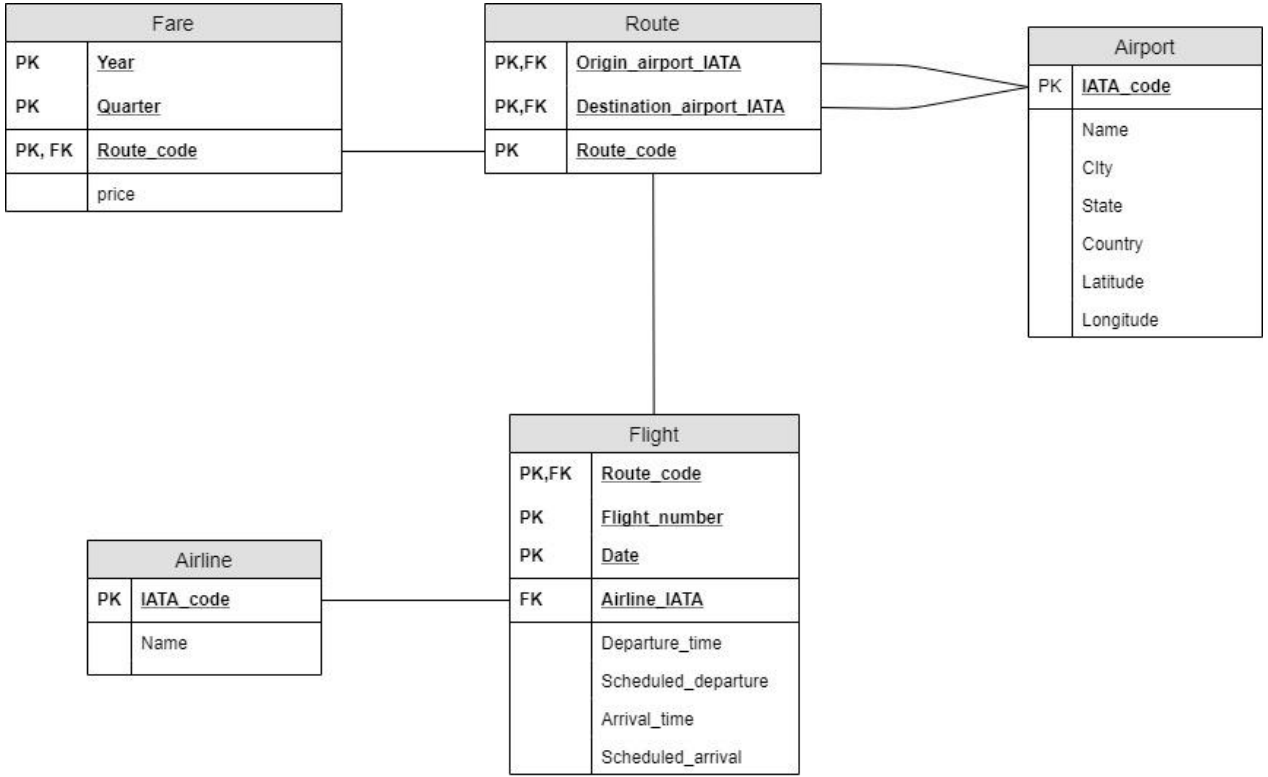
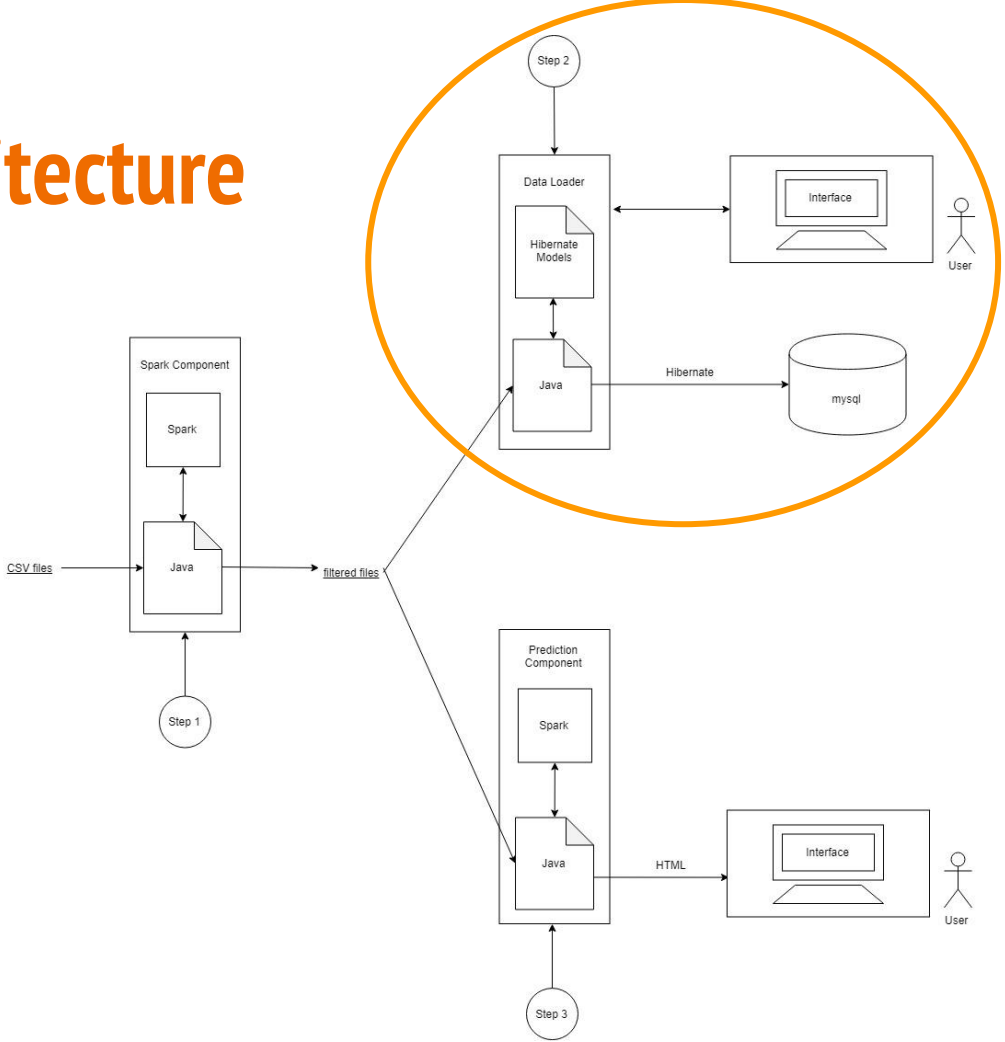


Project Architecture



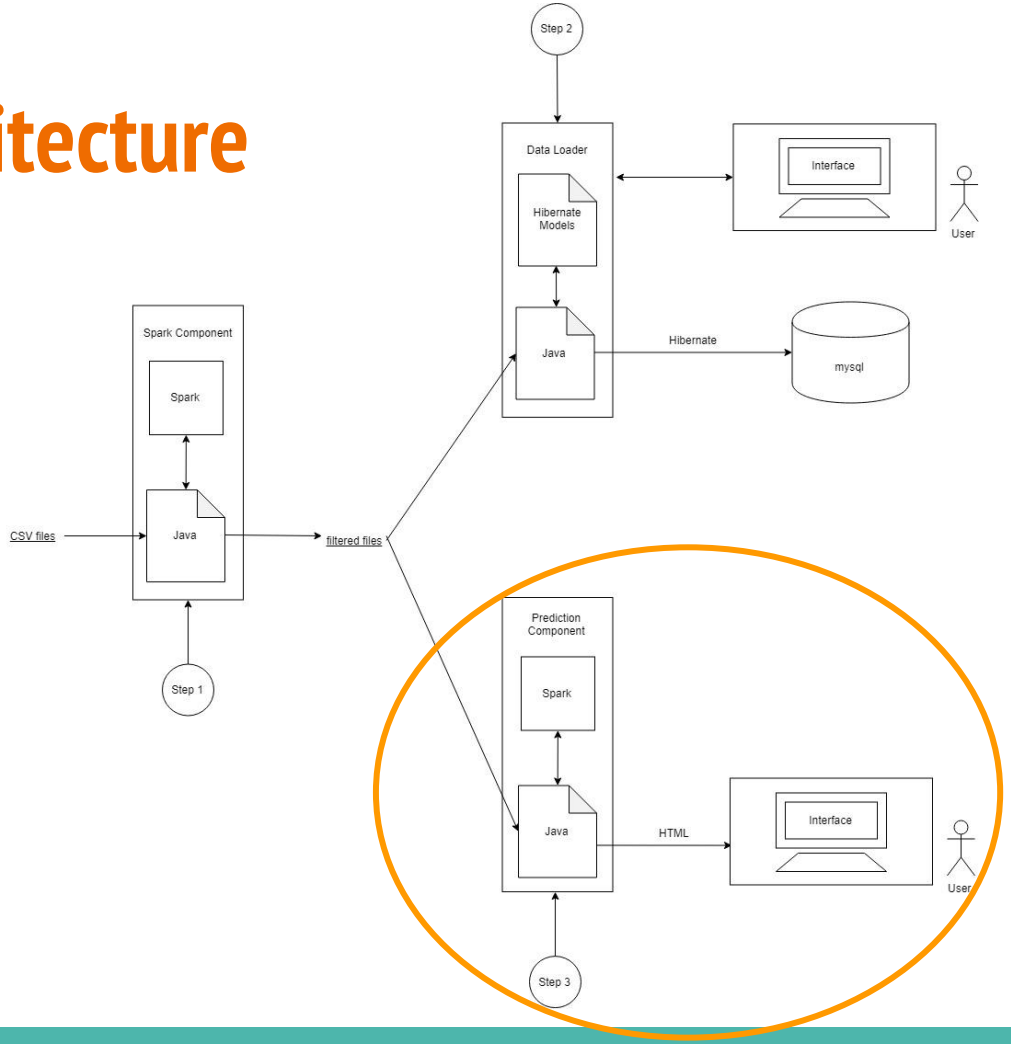
Step 2: Data Loader

- Interface
  - Flight Explorer
- Analytics
  1. What are the most expensive routes?
  2. What are the airports with the highest number of flights?
  3. What are the two most connected airports?
  4. What are the airlines which serve the lowest number of flights?
  5. What are the airports causing the greatest departure delay per flight?

Step 2: Data Loader

Demo

Project Architecture



Step 3: Prediction Component

- Prediction on the flights delay
- Analysis on “ANC-SEA” route
- Features:
  - Flight number;
  - Day of flight;
  - Departure Time;
  - Arrival Time

Step 3: Prediction Component

Demo

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Conclusion and Lesson Learned

- Java Project, Spark + Hibernate as main technologies, MySQL as database, HTML+JavaScript and Java windows as interface
- Hibernate: fast queries but slow upload
- Improvement: interface enhancement and control panel creation

Thank you