УНИВЕРСИТЕТ ИННОПОЛИС

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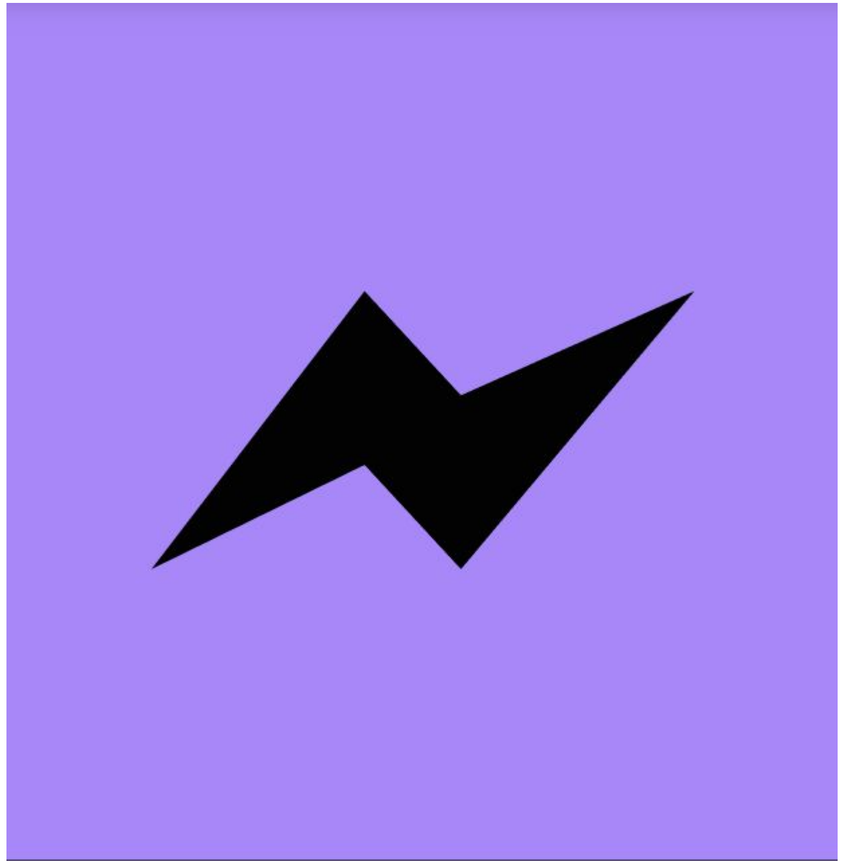
SmashUp

Practicum Project

What is SmashUp?

Streaming Service for Mash-Ups

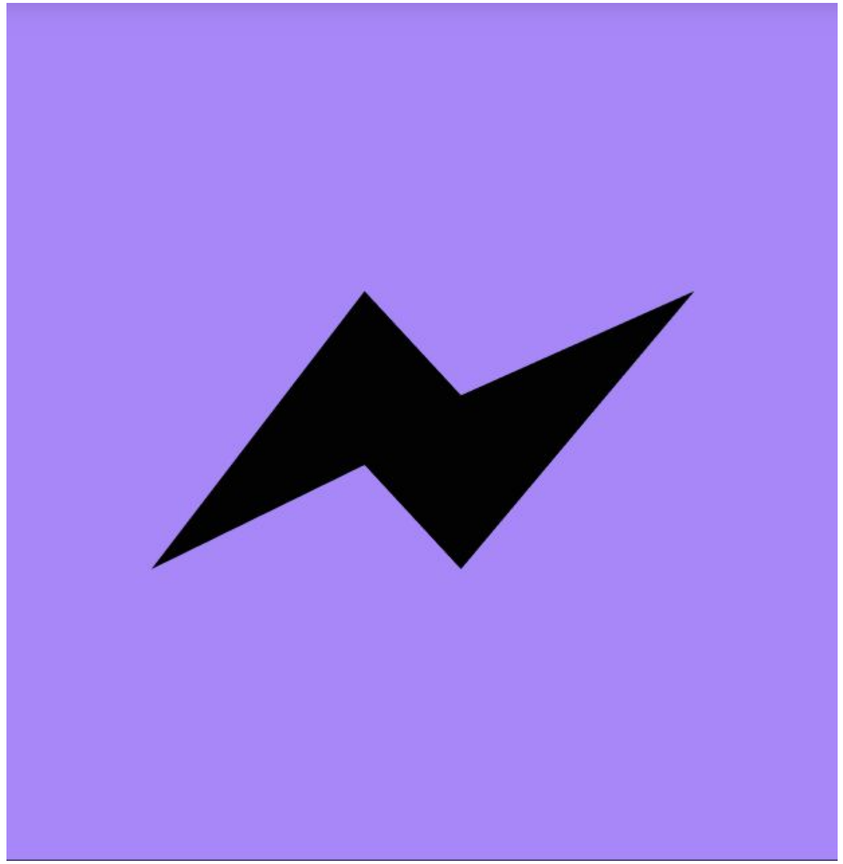
- Mash-up is a music composed of parts of several other tracks
- Our platform is a service aimed at providing an enjoyable experience for mash-up creators and listeners
- Service is intended to be completely free
- It is created specifically with mash-up tracks in mind



Why is SmashUp?

No Existing Analogues

- All existing music streaming services are not suited for mash-ups
- Convenient mash-up search functionality is not implemented
- Existing streaming services are almost exclusively paid
- Mash-up creators face persecution by copyright enforcement algorithms of existing services

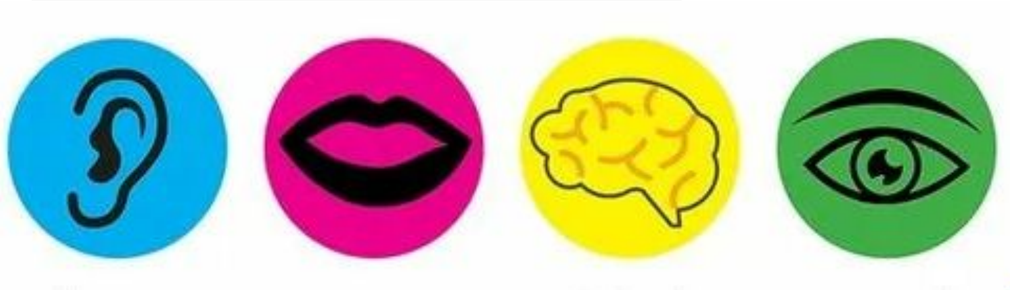


How is SmashUp?

Mash-up search.
AI recommendations.

- Service allows to search for mash-ups by original tracks
- Both authors of original tracks and mash-up creators are stored in track information

- AI analyzes user preferences and history to provide personal recommendations



Frontend

- Next.JS, Tailwind for layout
- ESLint, Prettier for formatting
- Husky and Lint-Staged to support code maintainability
- GitHub actions

- Server-side rendering
- Client-side entities caching
- URL-based localization
- Token-based authorization

Convenient user interface

Enjoyable user experience

Backend

- Spring Framework for business logic
- ORMM Library for generating SQL queries
- Unit and MVC tests to provide robust deployment

- Entities caching
- Stream static content
- Token-based authorization

Convenient API

Robust usage

Data Management

- MariaDB was chosen for compatibility with other used tools
- Users and entities data are stored using MariaDB

- Static content such as mash-ups and their covers stored as files

Storing user information

Storing tracks and metadata

Music Recommendation System Powered By ML

- KNN model was chosen because of lack of data
- Basic content based filtering

- Deployed as a flask microservice connected to backend

- Backend requests and receives list of recommended tracks for a certain user

More attention for creators

More content for consumers

Thank you for your attention