

Description and features

Labyrinth is a web application that aims to give each user a personalised experience of history and culture. The application UI consists of a network of nodes. Each node can represent a gallery in the museum, an artifact, or an article about related topics sourced from Wikipedia. The nodes can be connected together by a story path curated by the museum, or the user can explore these connections themselves, letting the app recommend new nodes on the fly.

Features - 1. User personalisation based on preferences in historical period, civilization, artifact type 2. Museum can add in specially curated story paths for artifacts (can be accompanied by audio) 3. In explore mode, app recommends related articles/artifacts and new nodes are generated.

Motivation

When we visited the museum, we got overwhelmed by the number of artifacts that were present in each gallery. As we explored the museum, we realised that some of the artifacts are very closely associated with one another. They can be connected using the mythologies and legends woven around them, thus leading to a way more enriching and enthralling experience of museum. Our aim is to let our users explore the museum on the app, just like they would in person. However, since so much of history is interrelated, we would also like our users to explore these lines too.

Technical Details

Front end (We call this Labyrinth, as it visualizes the vast network of artifacts and concepts, to which there is no end) - HTML / CSS / Javascript / D3.js

Backend (We call this Rabbit Hole, as it's responsible for creating new nodes or recommendations that deepen the rabbit hole the user falls into!) - Python / Flask based API endpoints hosted on Heroku.

Storage - Firebase

Database - Firestore

Other APIs used - Wptools, a python wrapper for MediaWiki

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