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The
Dataverse[®]
Project 

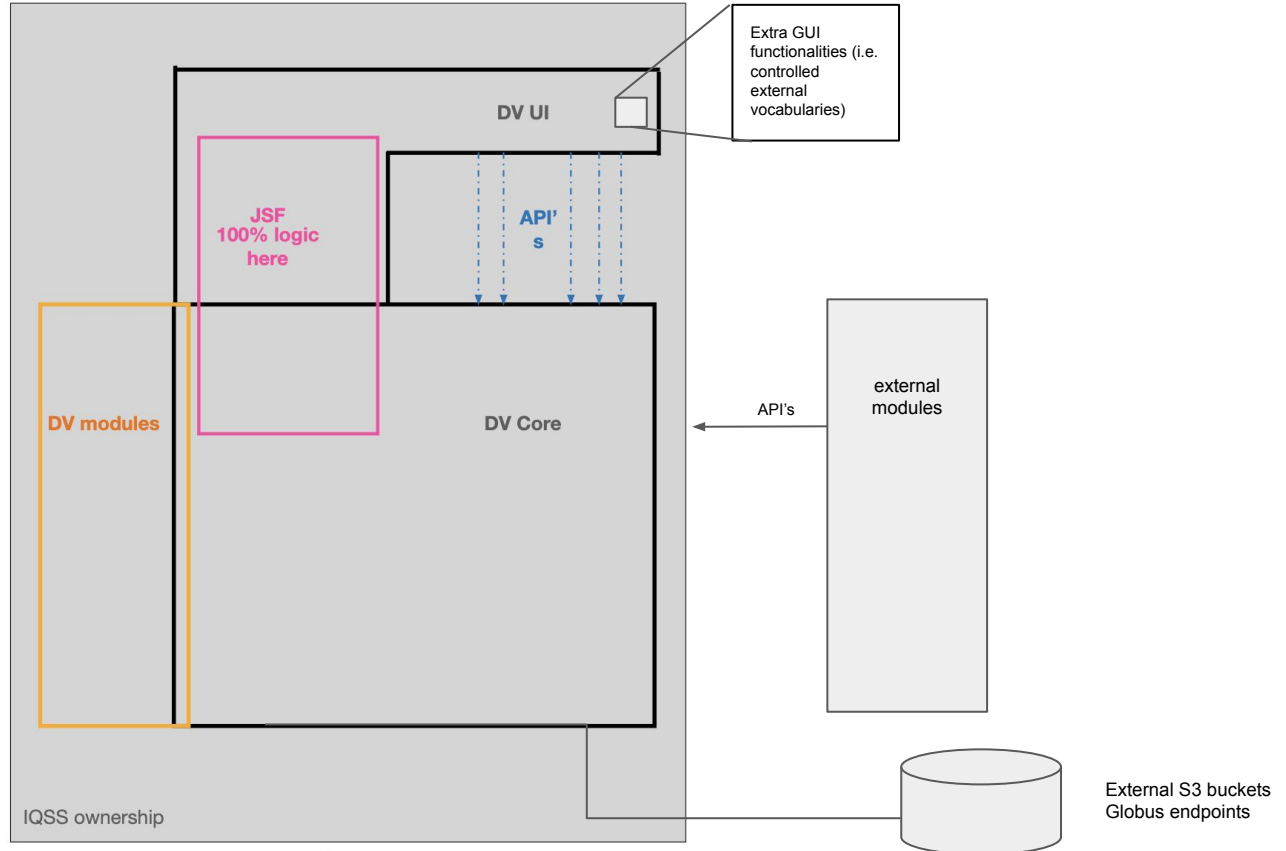
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SNU, 22 Feb 2023, Seoul

Goals

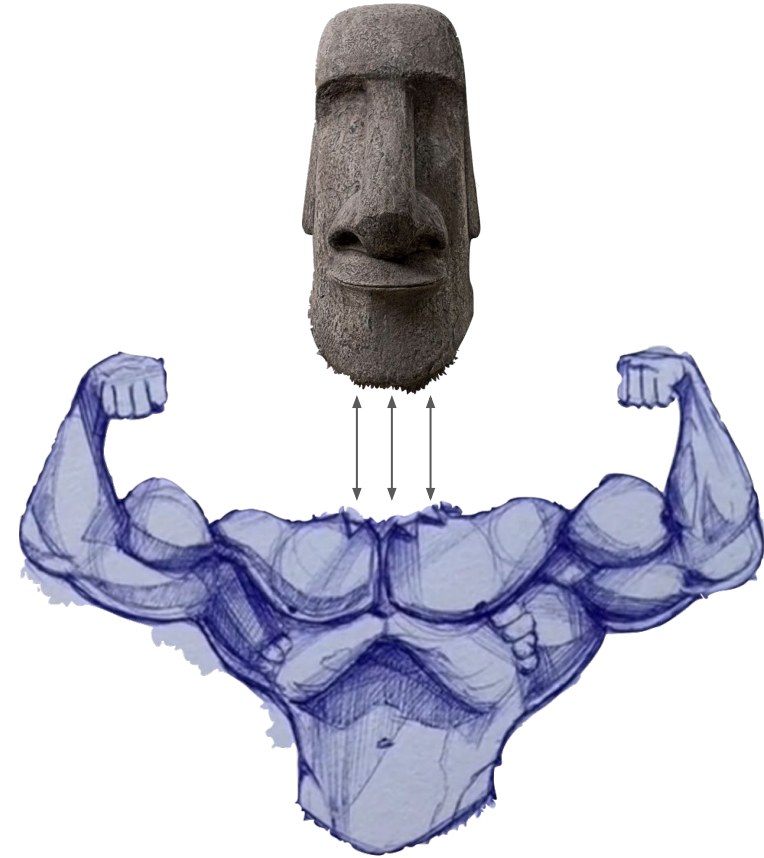
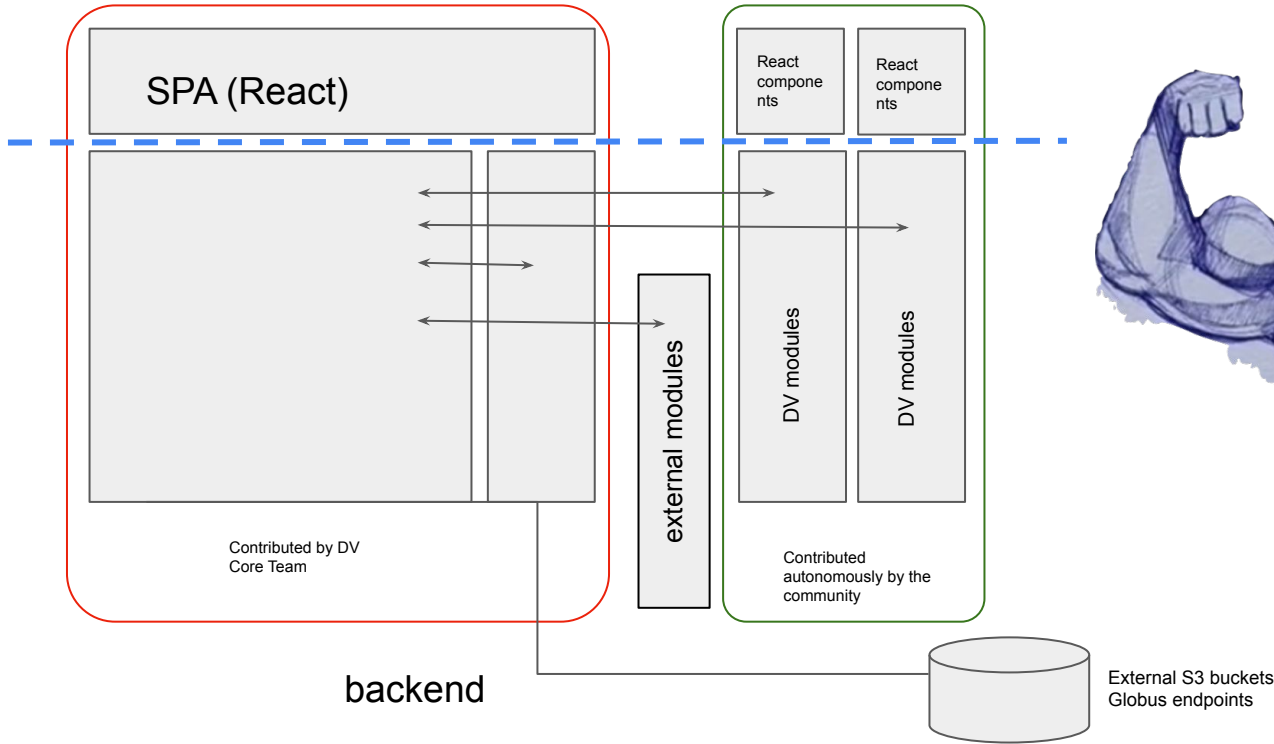
- modernize the application
- separate backend and frontend
- Dataverse backend becomes an API's first application
- frontend becomes a separate SPA (written in React)
- extend modularization of backend and frontend
- speed up development and implementation of new UI/UX ideas
- extend automatic testing, including UI
- empower the community

Monolith (though robust Java) application

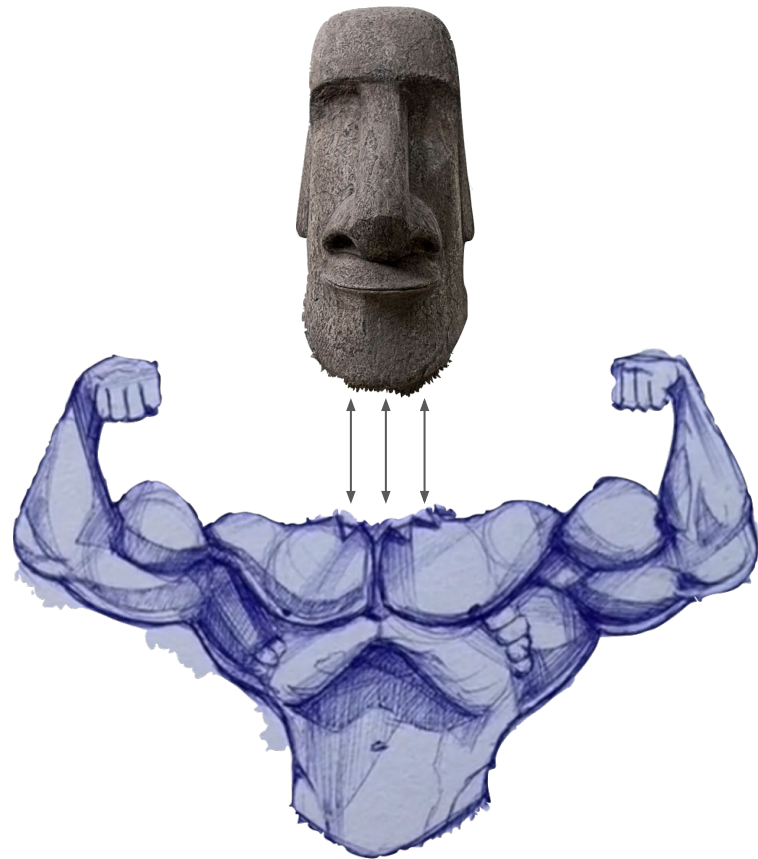
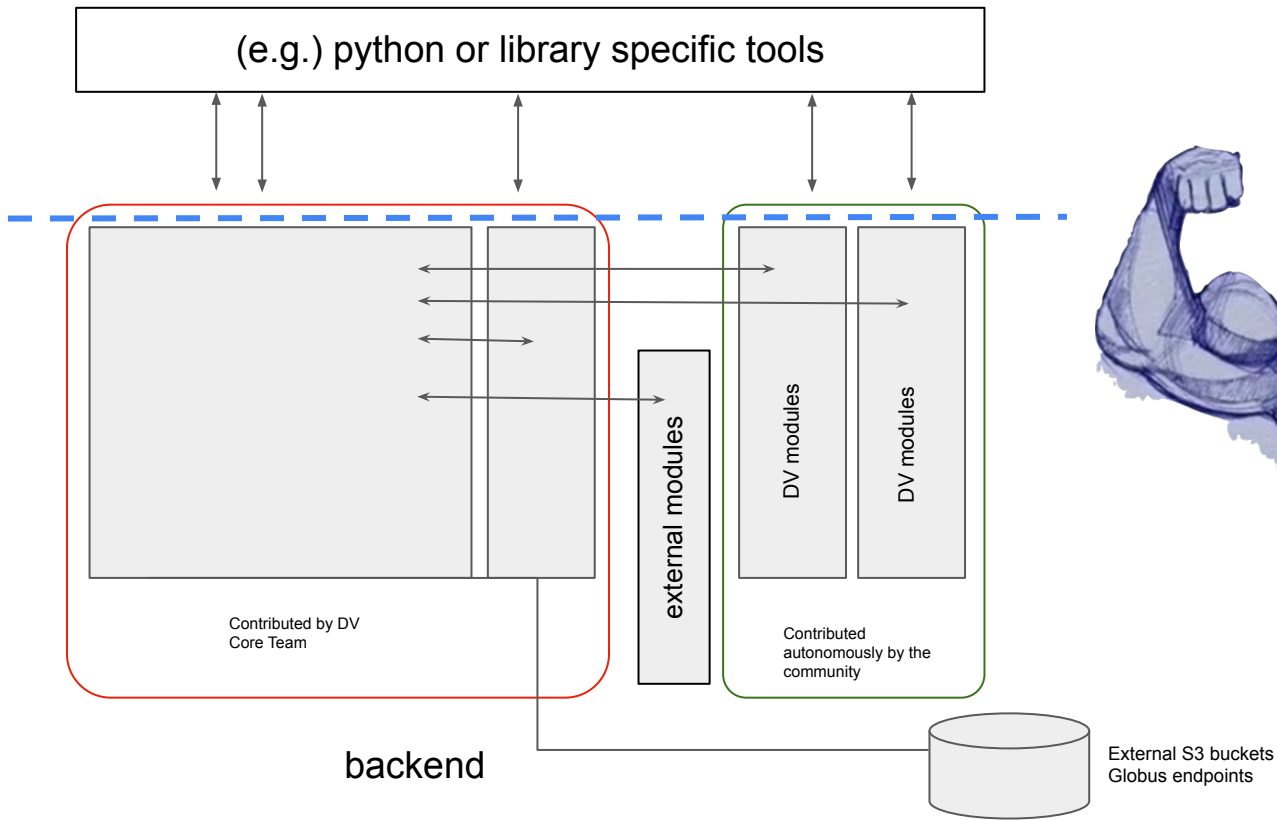


DV as an headless API's first application

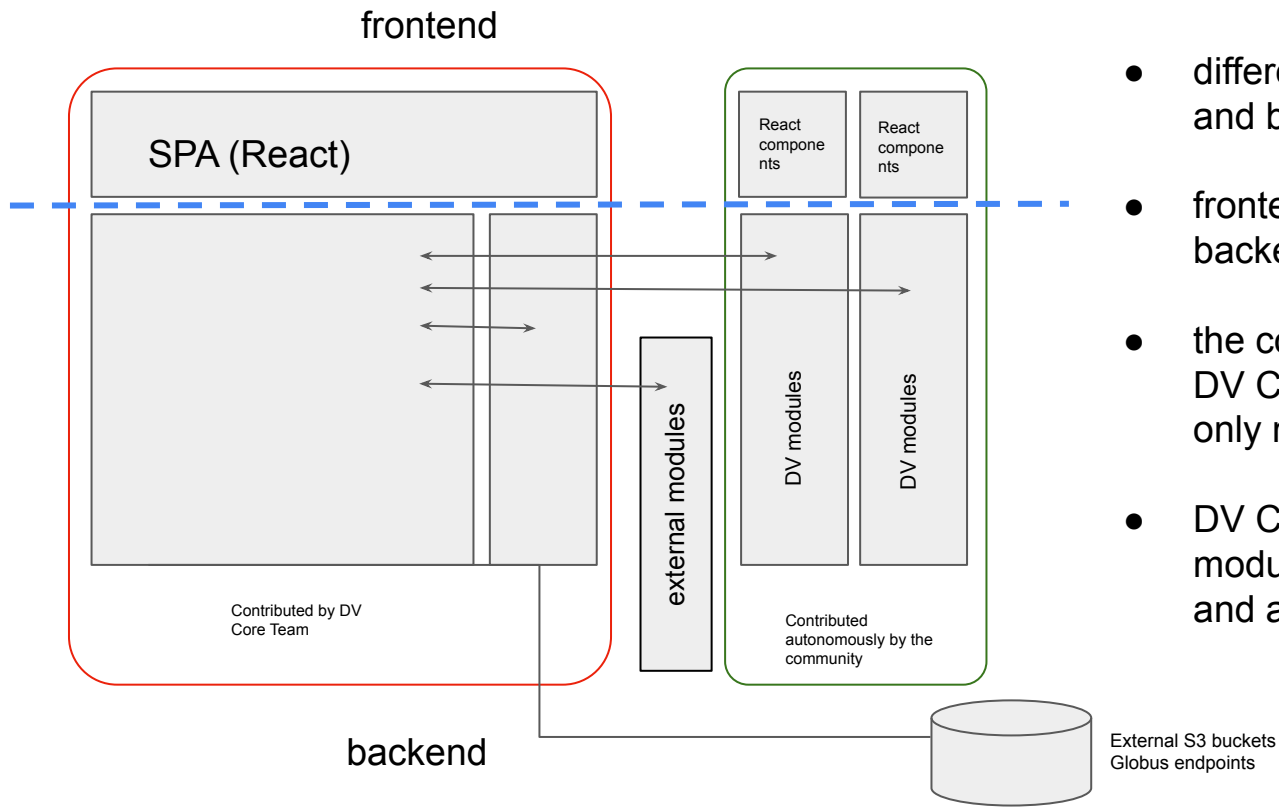
frontend



DV as an headless API's first application



DV as an headless API's first application



- different update cycles for frontend and backend
- frontend can go at a faster pace while backend gets more robust
- the community do not need to wait for DV Core Team to revise code that only matters their installations
- DV Core can always choose to adopt modules written by the community and add them to the base distribution

New facts after/with re-architecturing

- React.js framework for SPA (more devs out there than for JSF, no need to know all DV backend to develop UI)
- native support of “i18n” for localization/translation
- native support of “A11y” for accessibility
- full automatic testing for backend and frontend (Cypress)
- improved modularity (exploiting also React to provide dynamic UI building)
- “plug&play” module approach in addition to present modularity (i.e. do not need to rebuild/redeploy backend everytime you add a module)
- lighter modules (don’t need to include most of backend Java classes; minimalist approach)
- allow for revisiting some internal logic and optimization of existing backend

How the transition will be affecting existing installations

- first step is transitioning from Payara 5 to Payara 6 (this will be irrespective of the re-architecture) [+ JavaEE, Postgres, etc]
- backend API's will be extended/added to the present architecture (old functionalities/UI keep working)
- the SPA becomes a separate frontend (even a separate application)
- when SPA is mature enough the switch will be become painless
- at this point the old backend will be no longer supported (i.e. now new features, no soft bug fixings).

Roadmap

- First public MVP of the SPA will be presented at the [2023 Dataverse Community Meeting](#) in Portugal (5-7 June).
- Dataverse technical workshop will be presented during the same meeting to introduce the devs from the community to the new system
- More detailed plan of new MVP releases will be disclosed in 2023
- Detailed documentation added to standard DV documentation as long as new code will be released.
- ETA for the final product Q1 2024