



Below you can find proposed “techstack” of the “internet loans” project:

- **Frontend:**

- Single page app
 - fast and responsive
 - good caching capabilities
 - better user experience
- Framework: ReactJS
 - currently the most popular JavaScript framework
 - maintained by Facebook
 - big community, lots of open source libraries
- Marketing pages as static pages (better for SEO handling)
- Progressive Web Apps

- **Backend:**

- Microservices architecture
 - broken down into multiple component services
 - better fault isolation – one broken microservice doesn’t broke whole system
 - code for different services can be written in different languages
 - easy to understand since they represent a small piece of functionality, and easy to modify for developers, thus they can help a new team member become productive quickly
 - scalability and reusability
 - easy to integrate third-party services
- Potential technologies used to build microservices:
 - Python – popular, easy to learn, big community, lots of open source tools
 - Golang – perfect for latency reduction, excellent performance
 - Node.js – run-time environment that executes JavaScript code outside of a browser, “JavaScript” for servers
- Test-driven development
 - Unit tests – scripts that test application automatically instead making it manually
 - Keeping test coverage around 90% (number of code lines covered by tests)
 - Continuous Integration – making sure all tests are run for every single change in codebase



- **Servers Infrastructure:**

- Hosting – Amazon Web Service or Google Cloud Computing
- Terraform – infrastructure management
- Docker – containerization
- Kubernetes – orchestration
- CodeFresh – CI/CD
- All above give us flexibility, scalability, zero-downtime deployments, immutable infrastructure, automatic deployments