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Platforms from Prototype to Production

How to shape your platform to account for growth in your application

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Thank you!

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Software Engineer @ Deliveroo

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Software Engineer @ Deliveroo

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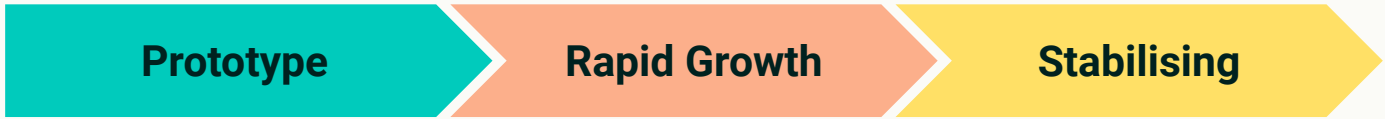
Software Engineer @ Deliveroo

We'll cover...

- Things that you need to think about when growing a service
- The necessity of sacrifice (in other words, trade offs)
- Explore tools that solve common problems at each stage

Service Lifecycle

The typical phases an app takes as it goes from prototype to production. Every stage requires a sacrifice - the answer is “what?”



Things to think about when prototyping - what can you sacrifice?

Adjusting to popularity

Trimming the fat when your business’ growth has stabilised

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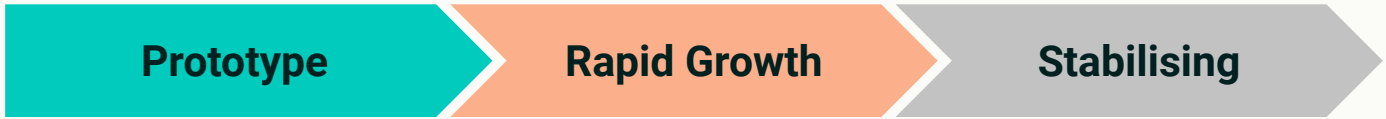

Things to think about when prototyping - what can you sacrifice?

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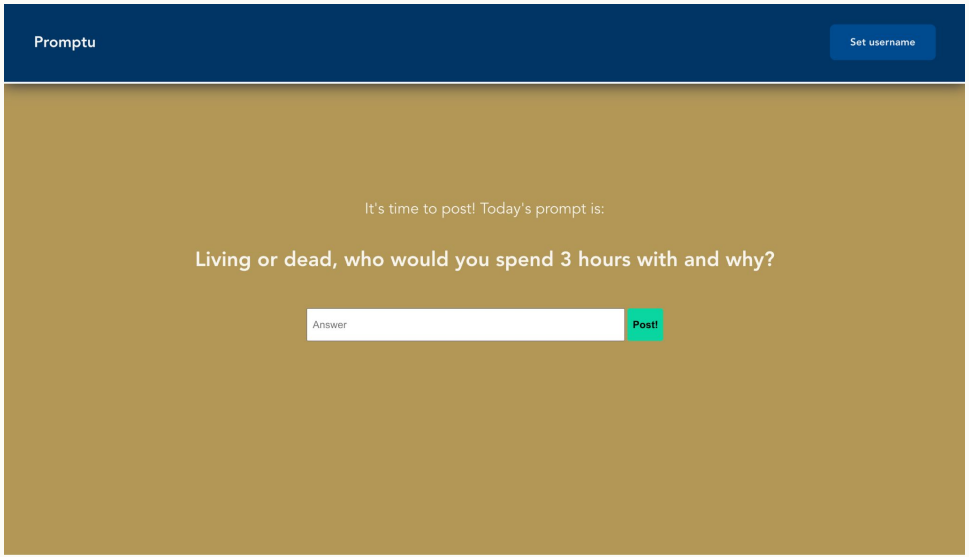
The Heroine of our Story

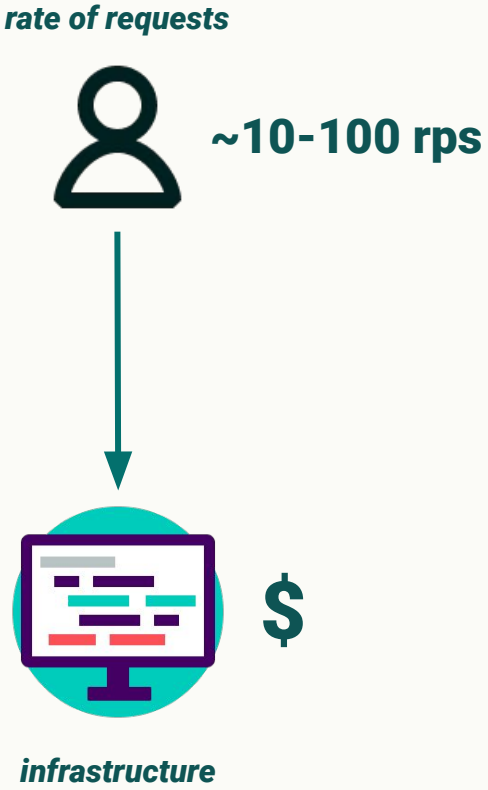
Promptu - where users can anonymously post an answer to to a daily thought-provoking question. Users can also see other users' posts.



Prototyping

What are your requirements like?

- Little capital
- Low number of users
- Unsure of growth prospects
- Fast development



Promptu features so far...

- One post per day/username (write heavy, bursty)
- See posts after posting
- No login required

Version Control System
DDoS Protection
Logging System
Queuing Technology
IT'S DANGEROUS TO GO ALONE! TAKE THIS.
Hosting Provider
CDN
Infra as Code
Integration Testing System
Monitoring System
Business Analytics System
Database Technology
CICD Pipeline

Version Control System

DDoS Protection

Logging System

provided by existing

Queuing Technology

Hosting Provider

CDN

Infra as Code

Integration Testing System

Monitoring System

provided by existing

Business Analytics System

Database Technology

CICD Pipeline

Choose your adventure!

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📑 Database Technology

🏡 Hosting Provider

Database Technology

Database Technology

Hosting Provider

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CICD Pipeline

Rapid Growth

What are your requirements like?

- Investment money
- Niche user base
- Now-or-never growth prospects
- Fast development

WeWork-like workspace

~5

Founding Dev Team

rate of requests

~100-1000 rps

$$

infrastructure

Promptu has new features planned!

- One post per day/username (write heavy, bursty)
- See posts after posting
- No login required

- **Likes for posts**
- **Commenting on posts**
- **Logins**
- **AI based ads**

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Version Control System

DDoS Protection

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provided by existing

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custom

Database Technology

CICD Pipeline

Choose your adventure!

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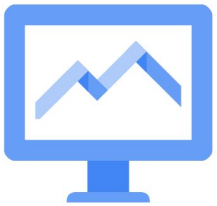
🧱 Infrastructure as Code

🍡 Queuing Technology

Infrastructure as Code

HashiCorp
Terraform



Google
Cloud Deployment
Manager

AZURE
RESOURCEMANAGER

AWS
CloudFormation

Pulumi

Queuing Technology

Things to consider (what it introduces)

- Costly
- Complex architecture
- Increased latency
- “Throttling”
- Compartmentalisation
- Fault tolerance

Queuing Technology

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Thank you!

/in/ssaidova