

# A One Woman Show of Migrating an Entire R&D SCM From Bitbucket to GitLab

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**Hila Fish**

Senior DevOps / Infrastructure Engineer / SRE @ Wix.com



# Abstract

Writing code is something that we learned.  
Managing a project E2E - Probably not that much.



# Hi! I'm Hila Fish

- *Senior DevOps Engineer / SRE @ Wix.com*
- *15 years experience in tech*
- *DevOps culture fan*
- *Conferences co-organizer -  
DevOpsDays TLV & StatsCraft*
- *Mentor @ courses, communities*
- *Lead singer in a cover band*





Project duration - **1.5 months**  
inc. training & handoffs

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# Project Structure

- **Planning**
- **Implementation [Inc. Integrations, Security, blockers]**
- **Training for the R&D department**
- **Documentation & handoffs**

**\* Project On-Ongoing Statuses**

# Pre-Planning



1

**What is my deadline?**

2

**Why are we doing this migration?**

On-Premise/Cloud, SAAS, internal reason

3

**Limitations?**

A need to do things in a certain way?



# Onwards to the **High Level Plan**

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**A GOAL WITHOUT  
A PLAN IS JUST A WISH.**

**- ANTOINE DE SAINT-EXUPÉRY**



TF Code



Networking  
troubleshooting



GitLab up and  
running



First bare repo  
migration



- Peripheral infra

Backups  
Monitoring



Second repo  
migration



Training  
Gradual Login  
Continuous migration

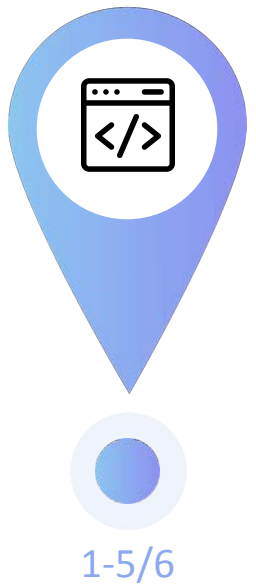


Migration done  
Documentation  
Handoffs



# Milestones and Rough Due dates

TF Code



Networking  
troubleshooting



6-7/6

GitLab up and  
running



7/6

First bare repo  
migration



7-8/6

Peripheral  
infra -  
Backups  
Monitoring



9-17/6

Second repo  
migration &  
pipeline



15-21/6

Training  
Gradual Login  
Continuous migration



21/6-14/7

Migration done  
Documentation  
Handoffs



14-15/7

# Milestones and Rough Due dates

## Networking troubleshooting



TF Code



1-5/6



6-7/6

GitLab up and running



7/6

First bare repo migration



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Peripheral infra - Backups Monitoring



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Second repo migration & pipeline



15-21/6

Training Gradual Login Continuous migration



21/6-14/7

Migration done Documentation Handoffs



14-15/7

# Milestones and Rough Due dates

**GitLab up  
and running**



TF Code



1-5/6

Networking  
troubleshooting



6-7/6

First bare repo  
migration



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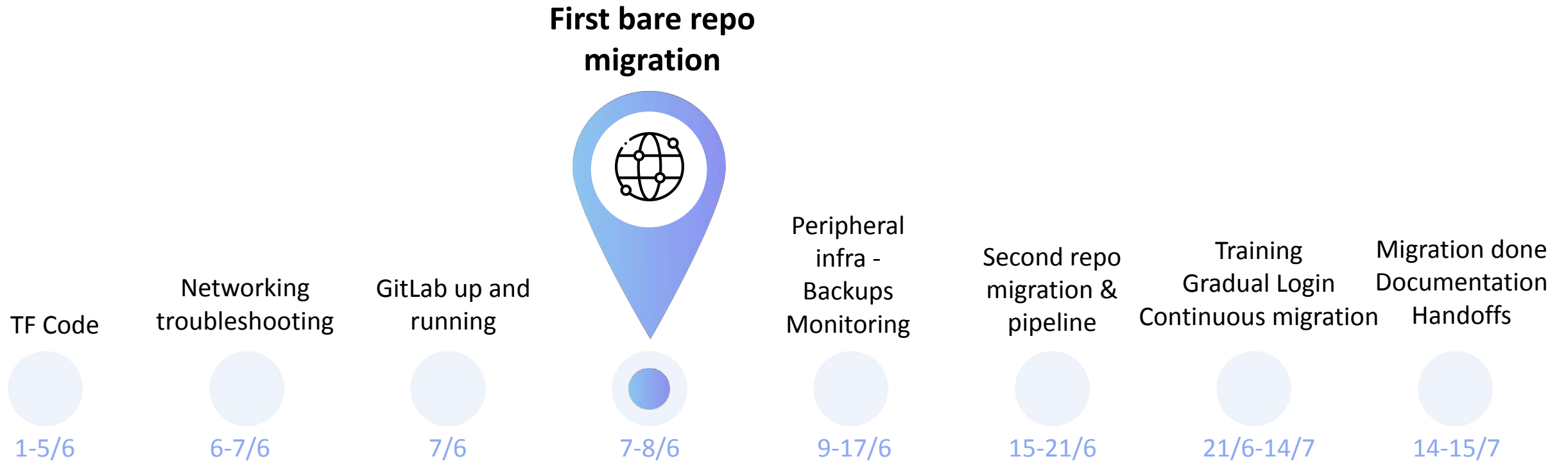
21/6-14/7

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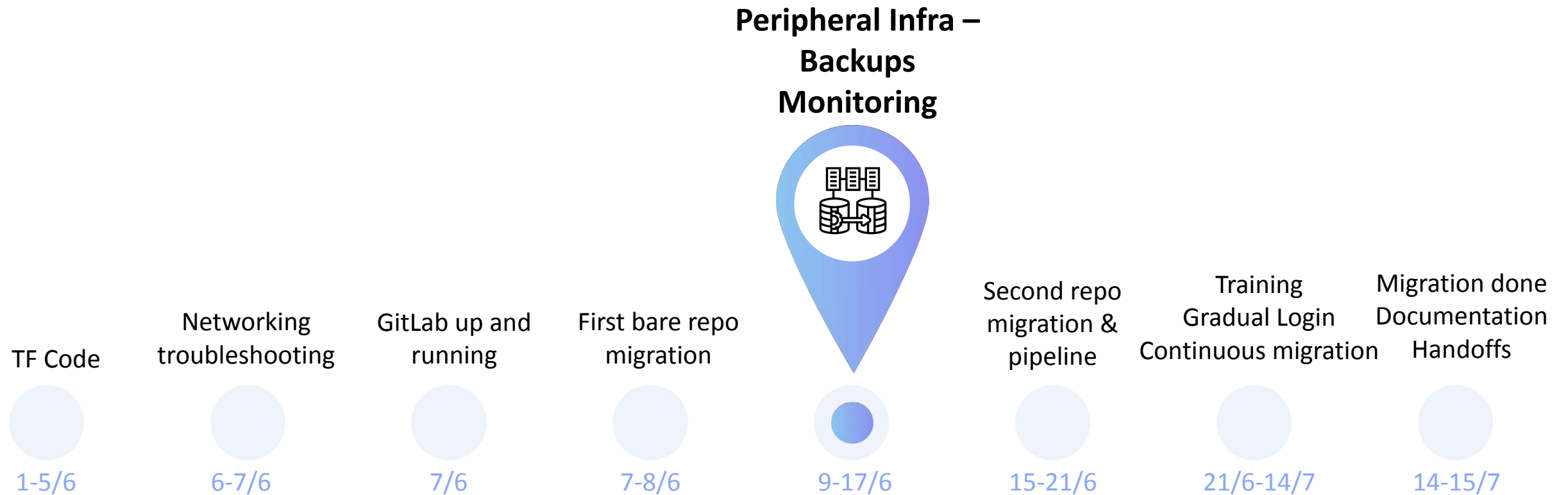


14-15/7

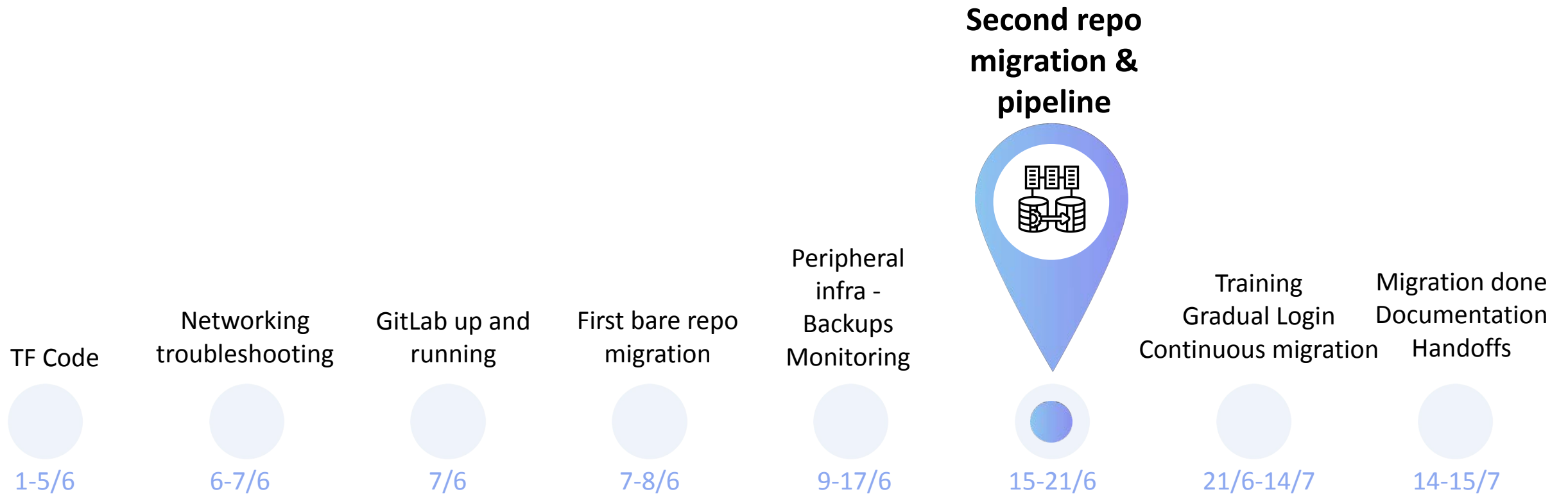
# Milestones and Rough Due dates



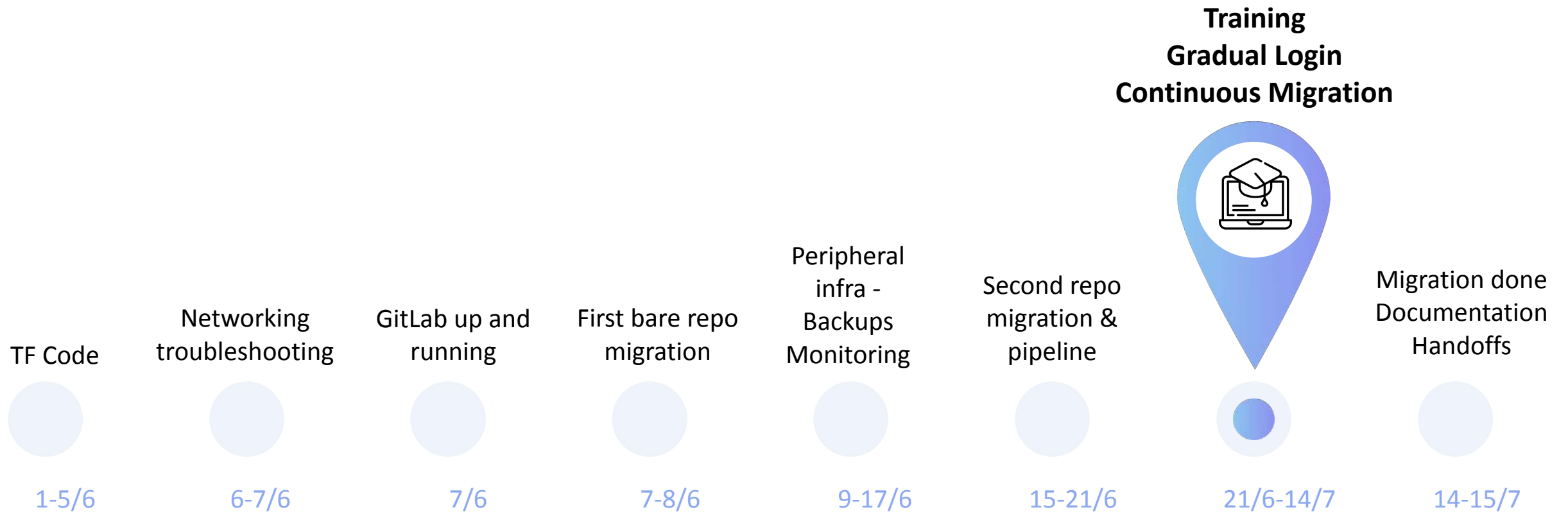
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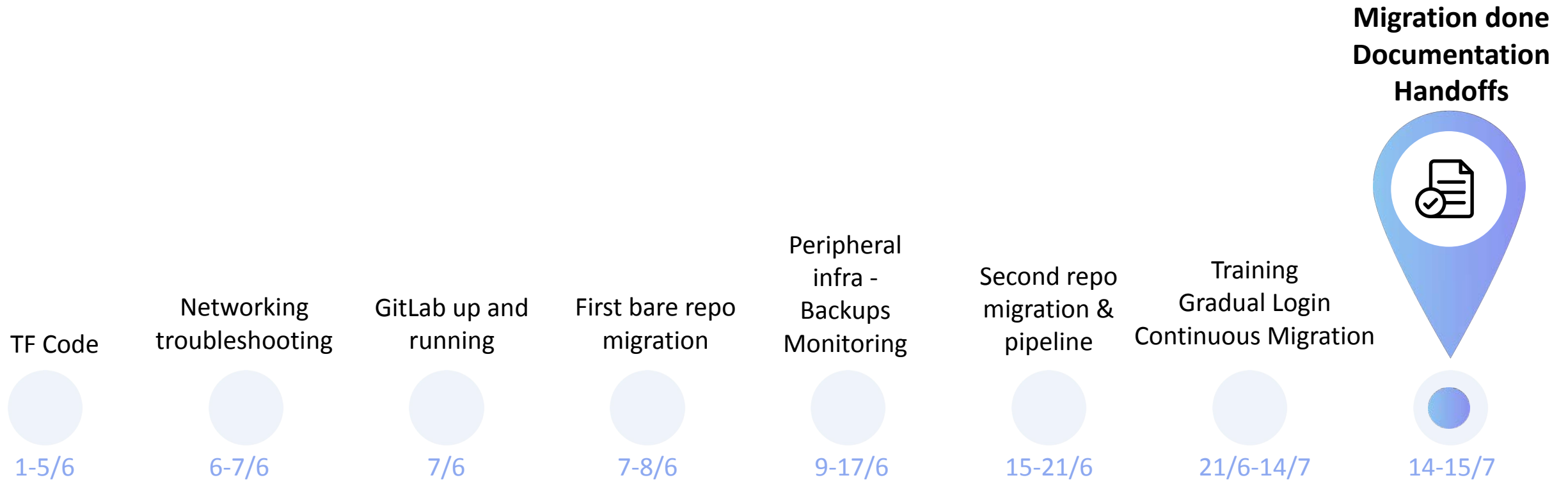


# Milestones and Rough Due dates





# Milestones and Rough Due dates



# Planning - Extra

1

**“First steps”** A mapping of needed steps - My side + external teams.

2

**“To Do”** Out-of-scope high level tasks

3

**“Read More”** Things to dwell on & deepen our knowledge in

4

**“Things to think about”** – Considerations for annual audits, etc

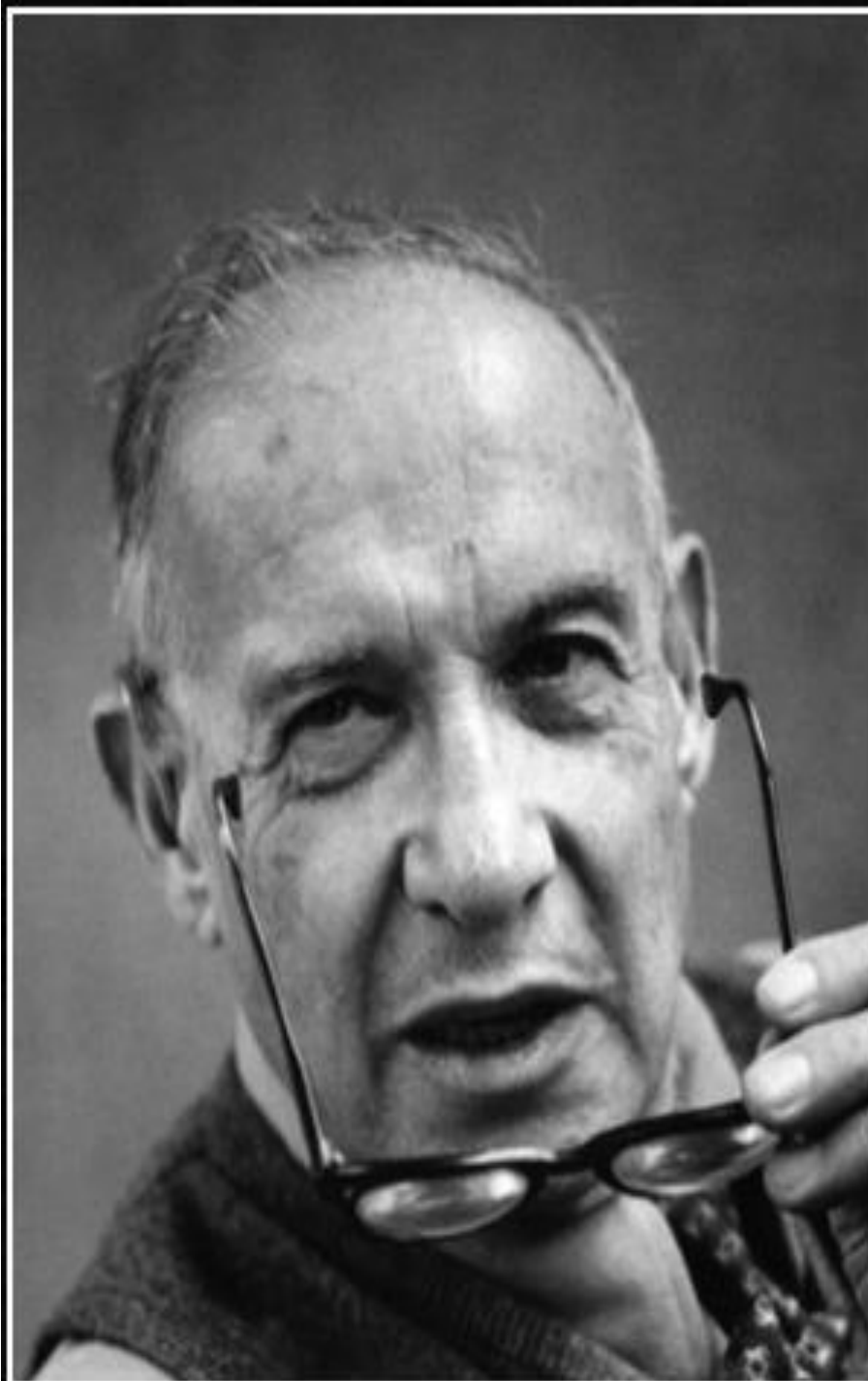
# Planning - Addendums

## ● Report issues I've encountered

## ● Appendices

1. Access mapping - Inbound/Outbound accessibility.
2. *LDAP Groups - Entities access to the self-hosted GitLab.*
3. Main repositories and CI pipelines - Track progress







The most important thing in  
communication is hearing what isn't  
said.

— *Peter Drucker* —

# Implementation

GitLab.org > charts > GitLab Chart

master gitlab / charts / gitlab / charts History Find file Download Clone

 **Pseudonymizer is deprecated** ...  
Robert Marshall authored 19 hours ago b920ab36 

Name	Last commit	Last update
..		
geo-logcursor	Update Chart versions to 5.10.1	4 days ago
gitaly	Update Chart versions to 5.10.1	4 days ago
gitlab-exporter	Update Chart versions to 5.10.1	4 days ago
gitlab-grafana	Update Chart versions to 5.10.1	4 days ago
gitlab-pages	Merge remote-tracking branch 'dev/master'	1 day ago
gitlab-shell	Update Chart versions to 5.10.1	4 days ago
kas	Update Chart versions to 5.10.1	4 days ago
mailroom	Update Chart versions to 5.10.1	4 days ago
migrations	Update Chart versions to 5.10.1	4 days ago
praefect	Update Chart versions to 5.10.1	4 days ago
sidekiq	Pseudonymizer is deprecated	19 hours ago
spamcheck	Update Chart versions to 5.10.1	4 days ago
toolbox	Pseudonymizer is deprecated	19 hours ago
webservice	Update Chart versions to 5.10.1	4 days ago

# Training - R&D

1

R&D Dep. training session - GitLab basic usage, main features  
Goal: Be familiar with GitLab before starting using it.

2

GitLab onboarding doc

3

Dedicated slack channel for the R&D - Ask questions, raise bugs, get support for all  
Gitlab related issues  
Goal: Ongoing Support & best customer service experience

# Documentation & handoff

**Introduction**

This document is intended to provide a clear and concise overview of the project's goals, objectives, and scope. It is designed to be a living document that evolves as the project progresses.

The primary purpose of this document is to ensure that all team members are aligned on the project's direction and to provide a central location for project information. It will also serve as a reference for stakeholders and clients.

This document is organized into several sections, including:

- Project Overview
- Goals and Objectives
- Scope
- Key Deliverables
- Timeline
- Risks and Challenges
- Conclusion

**Project Overview**

The project is a new initiative aimed at improving the efficiency of our internal processes. The primary goal is to reduce the time and cost associated with our current workflow. The project is led by the Project Manager and involves a cross-functional team of experts.

**Goals and Objectives**

The project has several key goals and objectives:

- Reduce the time to complete the project by 20%.
- Reduce the cost of the project by 15%.
- Improve the quality of the project deliverables.
- Ensure that the project is completed on time and within budget.

**Scope**

The project scope includes the following activities:

- Project planning and initiation.
- Task assignment and resource allocation.
- Regular communication and reporting.
- Monitoring and controlling project progress.
- Final review and project closure.

**Key Deliverables**

The project will produce several key deliverables, including:

- A detailed project plan.
- A list of project tasks and responsibilities.
- A project budget and cost estimate.
- A project timeline and Gantt chart.
- A final project report and summary.

**Timeline**

The project is scheduled to start on [Date] and is expected to be completed by [Date]. The project will be managed using a agile methodology, with regular sprints and reviews.

**Risks and Challenges**

There are several risks and challenges associated with this project, including:

- Resource availability and allocation.
- Scope creep and changes.
- Communication and collaboration issues.
- Time and budget constraints.

**Conclusion**

This project is a critical initiative for our organization and is expected to have a significant impact on our internal processes. We are committed to ensuring that the project is completed successfully and to providing a high-quality deliverable to our stakeholders.

# Key takeaways



## Planning is a must

- \* Understand the **company's needs**
- \* Foresee any **bottlenecks** and plan how you're going to tackle them upfront
- \* Derive **deadlines**

**Structure** will help you achieve things in a timely manner and literally “**progress according to plan**”.



## Updates & Collaboration matters

Always involve & bring the **stakeholders** up to speed



## Brainstorming & Collaboration matters #2

- \* **Showcase** the technical implementation you're planning to your relevant personnel.
- \* Have them **familiarize** with the project since they'll need to **support** it later.
- \* Get others' **inputs**.

Ensure **best implementation** & suitable for your use case.



# Key takeaways



## Tradeoffs are a given

- \* Consider **tradeoffs** during project execution
- \* **focus** on what matters right now.



## Documentation is key

- \* **RTFM** - Take the right **decisions**, defend those decisions whenever needed
- \* Leave documentation behind – **Knowledge sharing and preservation**



## Change is hard

- \* Leave time for training and familiarization with the tool.

# Thank you!

Hila Fish, Senior DevOps / Infrastructure Engineer / SRE @ Wix.com

*hilafish1@gmail.com*

*LinkedIn: Hila Fish*

*twitter@Hilafish1*