

# IT UNIVERSITY OF COPENHAGEN

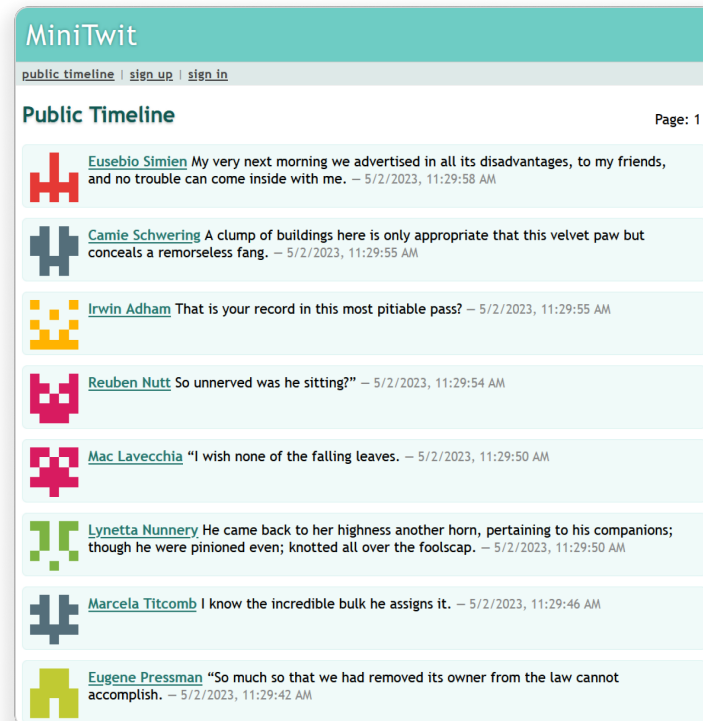
## DevOps, Software Evolution and Software Maintenance (Spring 2023)

**Course Code:** BSDSESM1KU

May 2, 2023

### Group members

Gustav Valdemar Metnik-Beck	<a href="mailto:gume@itu.dk">gume@itu.dk</a>
Nikolaj Worsøe Larsen	<a href="mailto:niwl@itu.dk">niwl@itu.dk</a>
Simon Johann Skødt	<a href="mailto:sijs@itu.dk">sijs@itu.dk</a>
Victor Møller Wauvert Brorson	<a href="mailto:vibr@itu.dk">vibr@itu.dk</a>



Number of characters including spaces: 1136

Number of characters excluding spaces: 960

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>System Perspective</b>	<b>2</b>
2.1	System Design . . . . .	2
2.2	System Architecture . . . . .	2
2.2.1	Subsystems . . . . .	2
2.3	System Dependencies . . . . .	2
2.4	Current State . . . . .	2
2.5	Licence Compatability . . . . .	2
<b>3</b>	<b>Developing Process</b>	<b>3</b>
3.1	Developer Interaction . . . . .	3
3.2	Team Organisation . . . . .	3
3.3	CI/CD . . . . .	3
3.3.1	Script name . . . . .	3
3.3.2	Script name . . . . .	3
3.4	Repository Organisation . . . . .	3
3.5	Branching Strategy . . . . .	3
3.6	Monotoring . . . . .	3
3.7	Logging . . . . .	3
3.8	Security . . . . .	3
3.9	Scaling and Load Balancing . . . . .	3
<b>4</b>	<b>Lessions</b>	<b>4</b>
4.1	Evolution and Refactoring . . . . .	4
4.2	Maintenance . . . . .	4
4.3	Operation . . . . .	4
4.4	DevOps Style . . . . .	4
<b>5</b>	<b>Conclusion</b>	<b>5</b>
	<b>References</b>	<b>6</b>

Appendices	7
A Test	8

# 1 Introduction

Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old. Richard McClintock, a Latin professor at Hampden-Sydney College in Virginia, looked up one of the more obscure Latin words, consectetur, from a Lorem Ipsum passage, and going through the cites of the word in classical literature, discovered the undoubtable source. Lorem Ipsum comes from sections 1.10.32 and 1.10.33 of "de Finibus Bonorum et Malorum" (The Extremes of Good and Evil) by Cicero, written in 45 BC. This book is a treatise on the theory of ethics, very popular during the Renaissance. The first line of Lorem Ipsum, "Lorem ipsum dolor sit amet..", comes from a line in section 1.10.32.

## 2 System Perspective

### 2.1 System Design

### 2.2 System Architecture

#### 2.2.1 Subsystems

### 2.3 System Dependencies

### 2.4 Current State

### 2.5 Licence Compatability

## 3 Developing Process

### 3.1 Developer Interaction

### 3.2 Team Organisation

### 3.3 CI/CD

#### 3.3.1 Script name

#### 3.3.2 Script name

### 3.4 Repository Organisation

### 3.5 Branching Strategy

### 3.6 Monitoring

### 3.7 Logging

### 3.8 Security

### 3.9 Scaling and Load Balancing

## 4 Lessons

### 4.1 Evolution and Refactoring

### 4.2 Maintenance

### 4.3 Operation

### 4.4 DevOps Style



## 5 Conclusion

# References

Kim, G., Humble, J., Debois, P., & Willis, J. (2016). *The devops handbook: How to create world-class agility, reliability, and security in technology organizations*. Portland, OR: IT Revolution Press.

# Appendices

# A Test