

Team: Kristian Lubina, Daniel Kovac, Büsra Atalay

# Dokumentation Modul 324-02A

## Meine durchgeführten Schritte zur Projekteinrichtung

### 1. Projekt-Repository klonen

```
git clone https://github.com/WISS-GB/M324_PROJEKT_TODOLIST
cd M324_PROJEKT_TODOLIST
```

### 2. Backend erstmalig versuchen zu starten (mit Fehler)

```
cd backend
./mvnw spring-boot:run
```

- Erhielt Fehler: "Fatal error compiling: error: release version 17 not supported"

### 3. Java-Version-Problem lösen

Java 17 installieren

```
sudo apt update
sudo apt install openjdk-17-jdk
```

Java 17 als Standard-Version setzen

```
sudo update-alternatives --config java
sudo update-alternatives --config javac
```

JAVA\_HOME auf Java 17 setzen

```
export JAVA_HOME=/usr/lib/jvm/java-17-openjdk-amd64
export PATH=$PATH:$JAVA_HOME/bin
```

Java-Version überprüfen

```
java -version
```

JAVA\_HOME permanent setzen

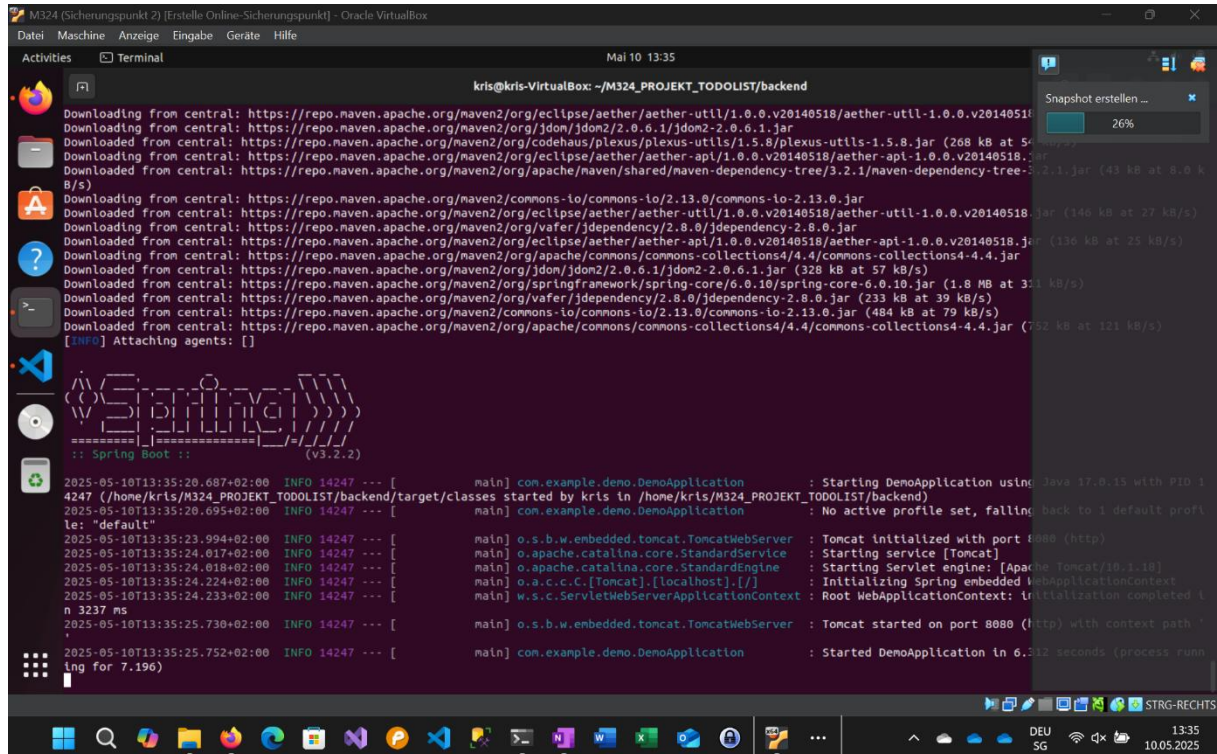
```
echo 'export JAVA_HOME=/usr/lib/jvm/java-17-openjdk-amd64' >> ~/.bashrc
echo 'export PATH=$PATH:$JAVA_HOME/bin' >> ~/.bashrc
source ~/.bashrc
```

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## 5. Backend erfolgreich starten

```
cd /home/kris/M324_PROJEKT_TODOLIST/backend
```

```
mvn spring-boot:run
```



```
M324 (Sicherungspunkt 2) [Erstelle Online-Sicherungspunkt] - Oracle VM VirtualBox
Datei Maschine Anzeige Eingabe Geräte Hilfe
Activities Terminal
Mai 10 13:35
kris@kris-VirtualBox: ~/M324_PROJEKT_TODOLIST/backend

Downloading from central: https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-util/1.0.0.v20140518/aether-util-1.0.0.v20140518.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/jdom/jdom2/2.0.6.1/jdom2-2.0.6.1.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/1.5.8/plexus-utils-1.5.8.jar (268 kB at 54 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-api/1.0.0.v20140518/aether-api-1.0.0.v20140518.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/maven/shared/maven-dependency-tree/3.2.1/maven-dependency-tree-3.2.1.jar (43 kB at 8.0 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-io/2.13.0/commons-io-2.13.0.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-util/1.0.0.v20140518/aether-util-1.0.0.v20140518.jar (146 kB at 27 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-api/1.0.0.v20140518/aether-api-1.0.0.v20140518.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/eclipse/aether/aether-api/1.0.0.v20140518/aether-api-1.0.0.v20140518.jar (136 kB at 25 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-collections4/4.4/commons-collections4-4.4.jar
Downloading from central: https://repo.maven.apache.org/maven2/org/jdom/jdom2/2.0.6.1/jdom2-2.0.6.1.jar (328 kB at 57 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/spring-core/6.0.10/spring-core-6.0.10.jar (1.8 MB at 321 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/spring-core/6.0.10/spring-core-6.0.10.jar (239 kB at 39 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-io/2.13.0/commons-io-2.13.0.jar (484 kB at 79 kB/s)
Downloading from central: https://repo.maven.apache.org/maven2/org/apache/commons/commons-collections4/4.4/commons-collections4-4.4.jar (752 kB at 121 kB/s)
[INFO] Attaching agents: []

:: Spring Boot ::
(v3.2.2)

2025-05-10T13:35:20.687+02:00 INFO 14247 --- [main] com.example.demo.DemoApplication : Starting DemoApplication using Java 17.0.15 with PID 14247 (/home/kris/M324_PROJEKT_TODOLIST/backend/target/classes started by kris in /home/kris/M324_PROJEKT_TODOLIST/backend)
2025-05-10T13:35:20.695+02:00 INFO 14247 --- [main] com.example.demo.DemoApplication : No active profile set, falling back to 1 default profile: "default"
2025-05-10T13:35:23.994+02:00 INFO 14247 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port 8080 (http)
2025-05-10T13:35:24.017+02:00 INFO 14247 --- [main] o.apache.catalina.core.StandardService : Starting service [Tomcat]
2025-05-10T13:35:24.018+02:00 INFO 14247 --- [main] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/10.1.18]
2025-05-10T13:35:24.224+02:00 INFO 14247 --- [main] o.a.c.c.C.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
2025-05-10T13:35:24.233+02:00 INFO 14247 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 3237 ms
2025-05-10T13:35:25.730+02:00 INFO 14247 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8080 (http) with context path '/'
2025-05-10T13:35:25.752+02:00 INFO 14247 --- [main] com.example.demo.DemoApplication : Started DemoApplication in 6.212 seconds (process running for 7.196s)
```

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## 6. Frontend vorbereiten und starten

```
# Neues Terminal öffnen

cd /home/kris/M324_PROJEKT_TODOLIST/frontend

# Dependencies installieren

npm install

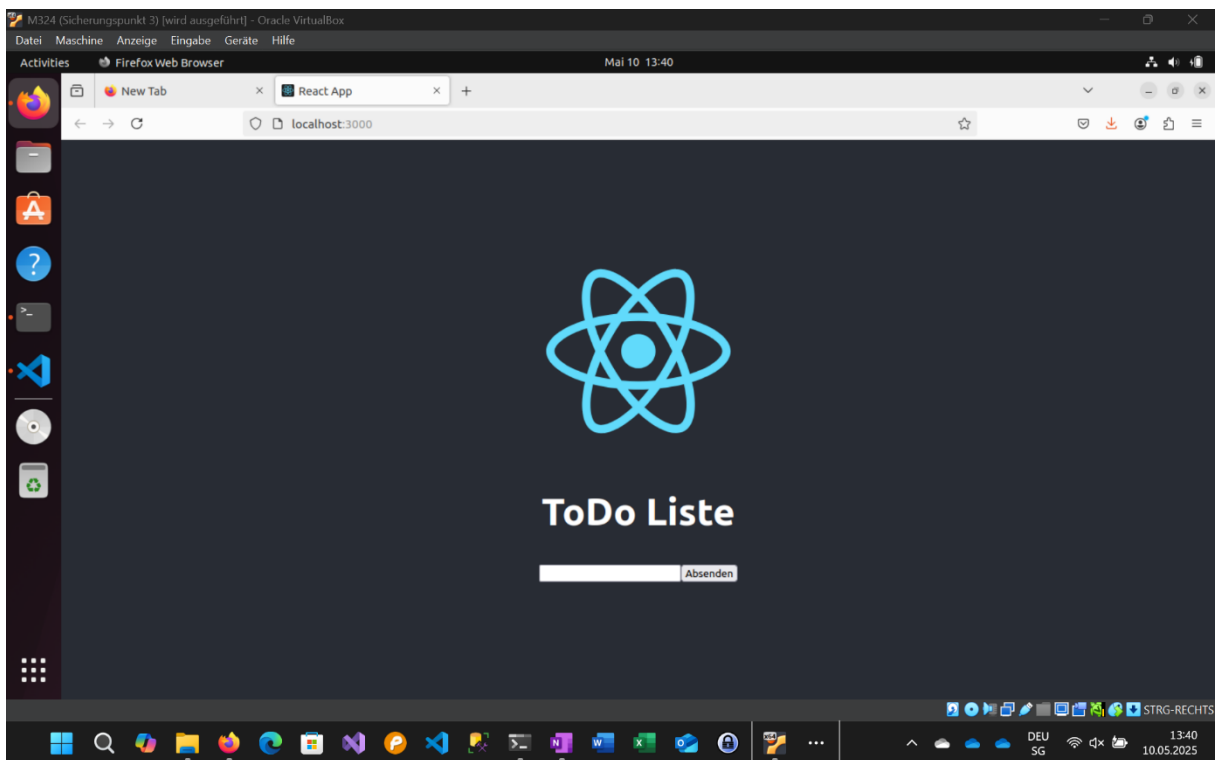
# Frontend starten

npm start
```

## 7. Anwendung im Browser öffnen

Browser geöffnet auf `http://localhost:3000`

Diese Terminal-Befehle haben mir geholfen, beide Anwendungsteile erfolgreich zum Laufen zu bringen und die Todo-App vollständig zu testen.



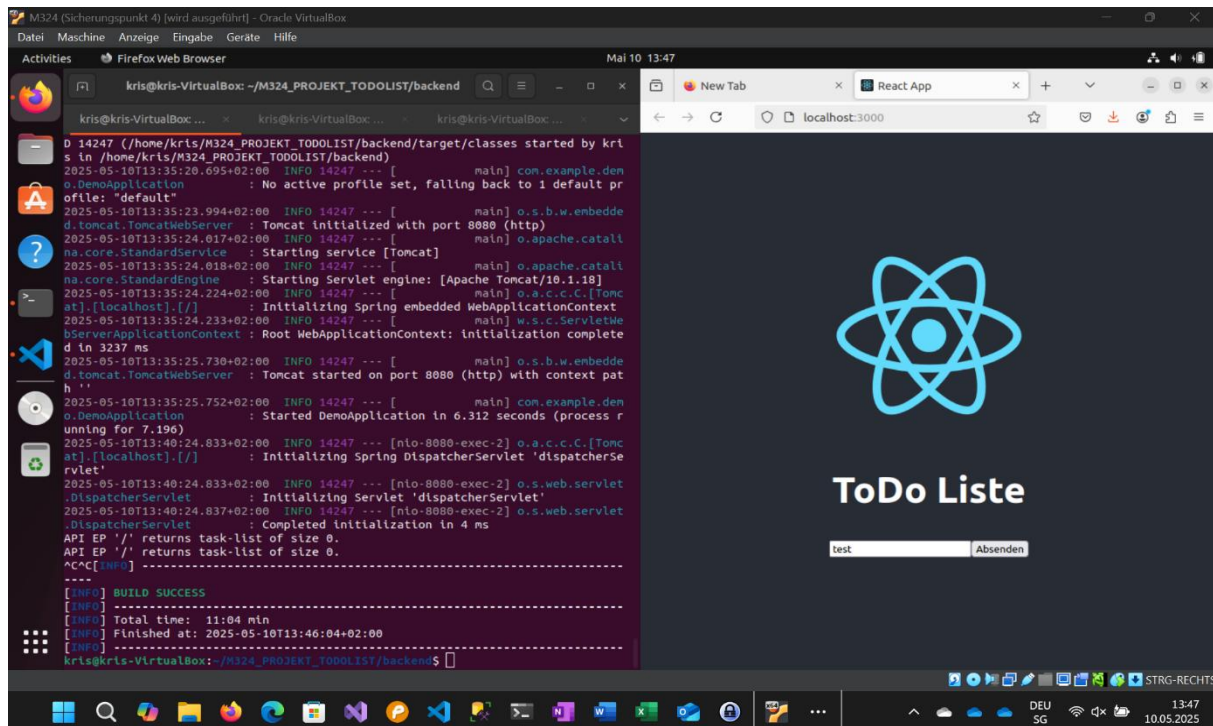
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# Zugreifen und Testen

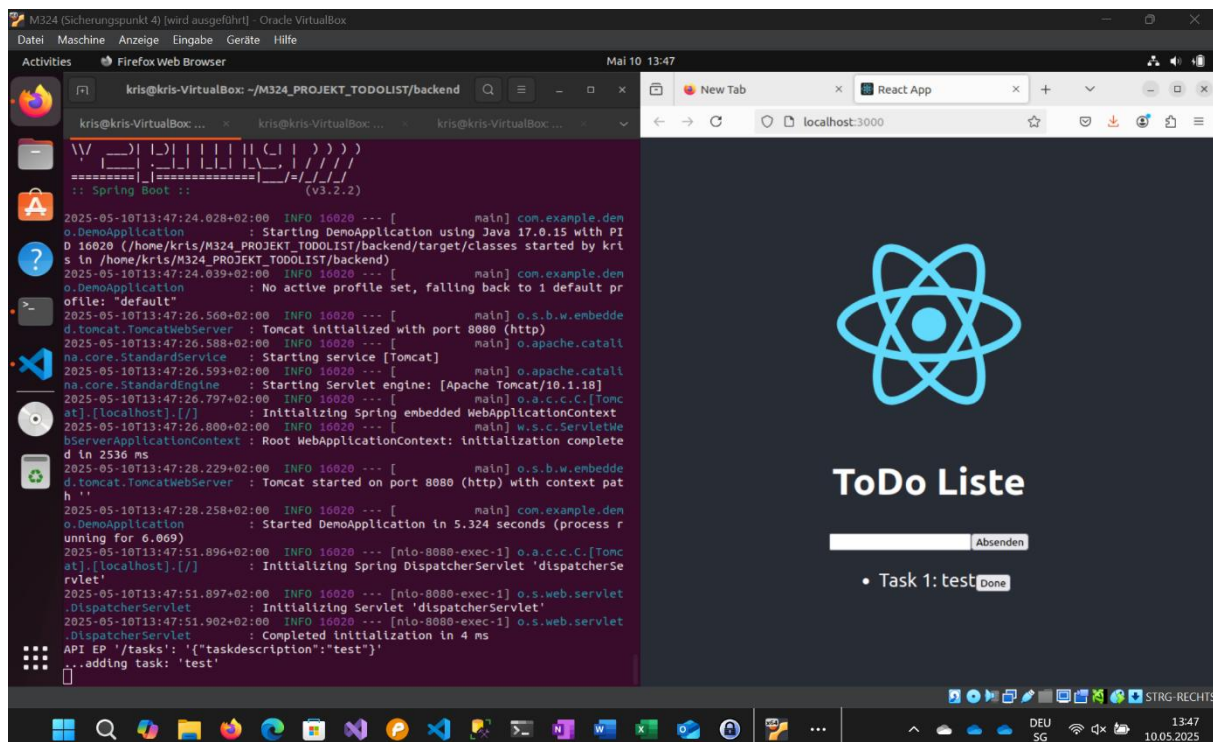
## Backend herunterfahren und Neustart

mit Ctrl+C und erneut `mvn spring-boot:run``

Resultat: Das Frontend bleibt weiterhin bestehen, man kann aber keine neue To-Do-Einträge machen.



Einträge sind nur möglich wenn das Backend läuft wie im Bild unten.



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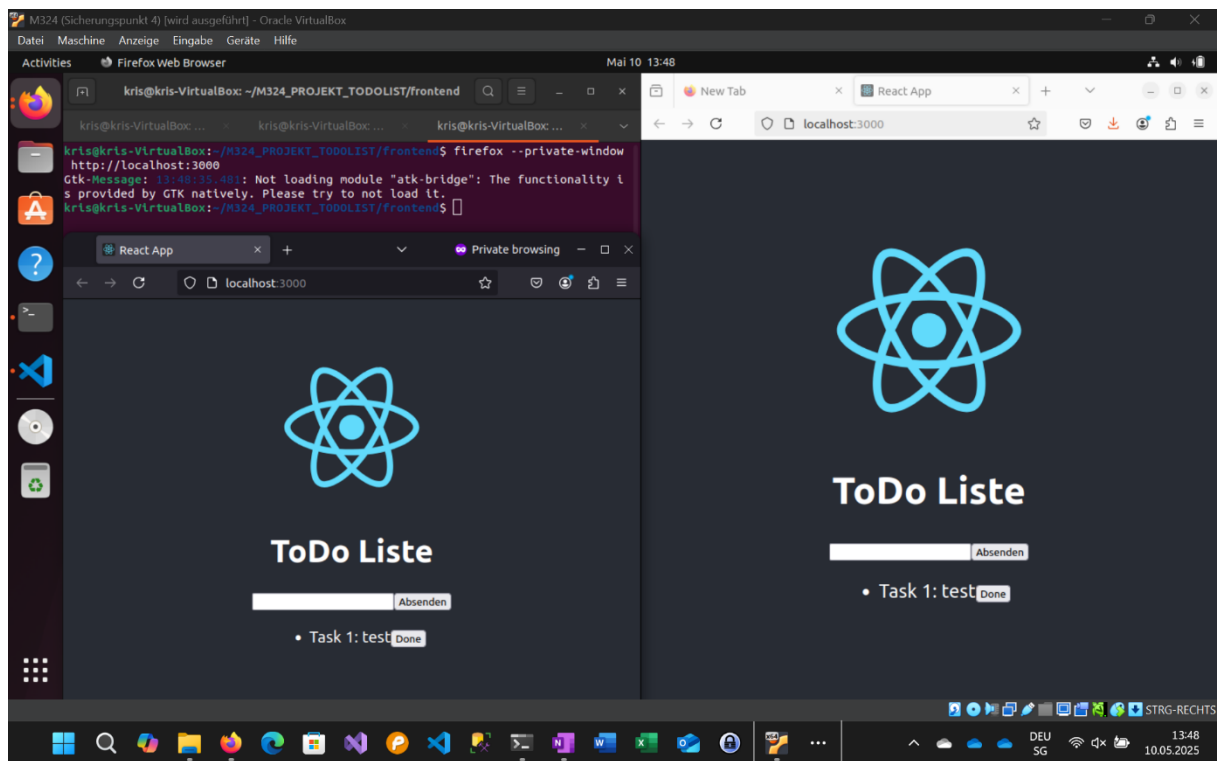
## Zugriff auf zwei verschiedene Browser

Hauptfenster:

Firefox auf `http://localhost:3000``

Zweites Fenster:

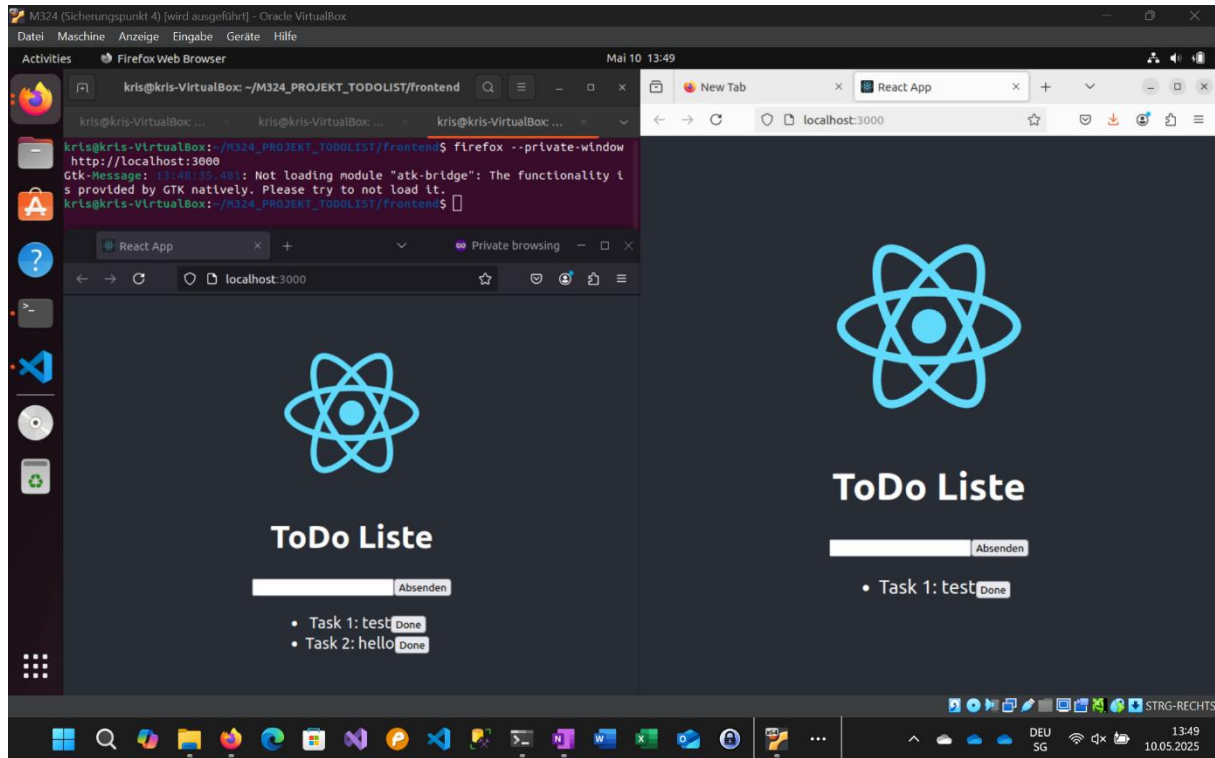
`firefox --private-window http://localhost:3000``



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## Funktionen in beide Browser testen

- Neue Todos hinzufügen
- Todos löschen
- Keine Echtzeit-Synchronisation zwischen mehreren Clients





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# Projekt ins Remote-Repository schicken

## Git konfigurieren

```
git config --global user.email "kristian.lubina@outlook.com"

git config --global user.name "Klubina"
```

## Remote-Repository einrichten

```
git remote remove origin # Alten GitHub-origin entfernt

git remote add origin https://gitlab.com/KLubina/M324_TODO_PROJECT.git
```

## Code commiten und pushen

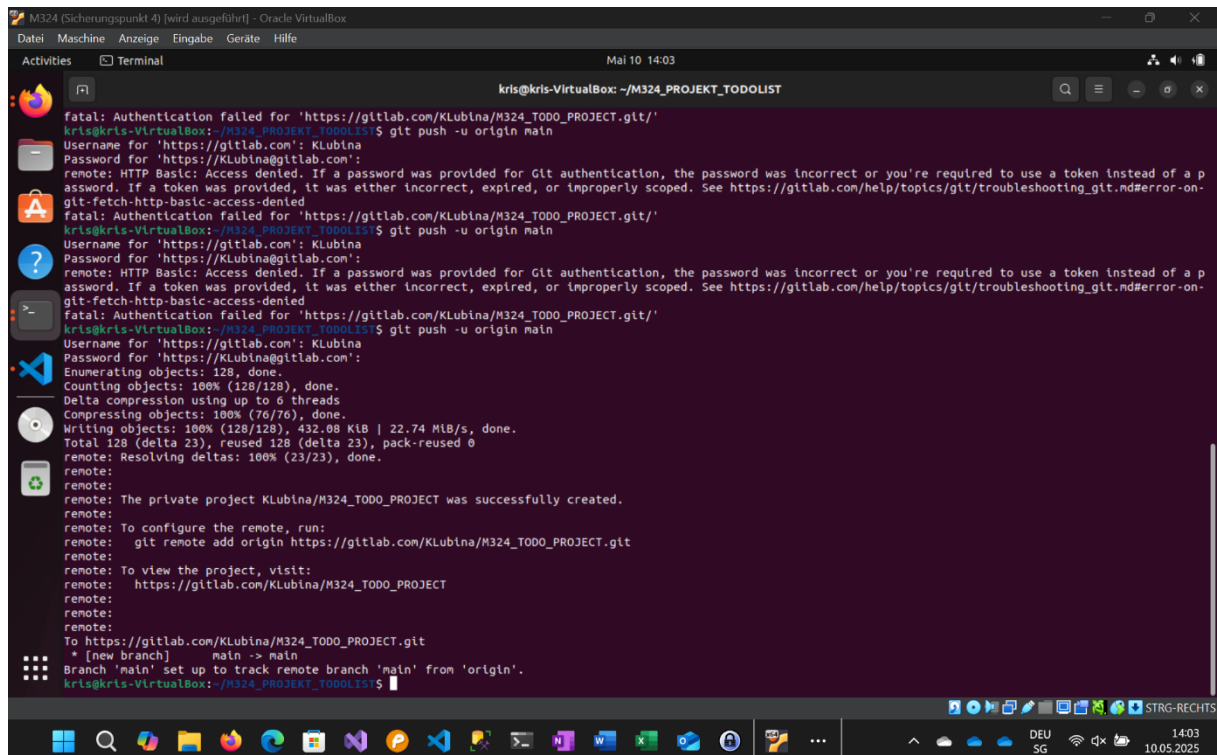
```
git add .

git commit -m "Initial commit - Todo App Project"

git push -u origin main
```

## Authentifizierung

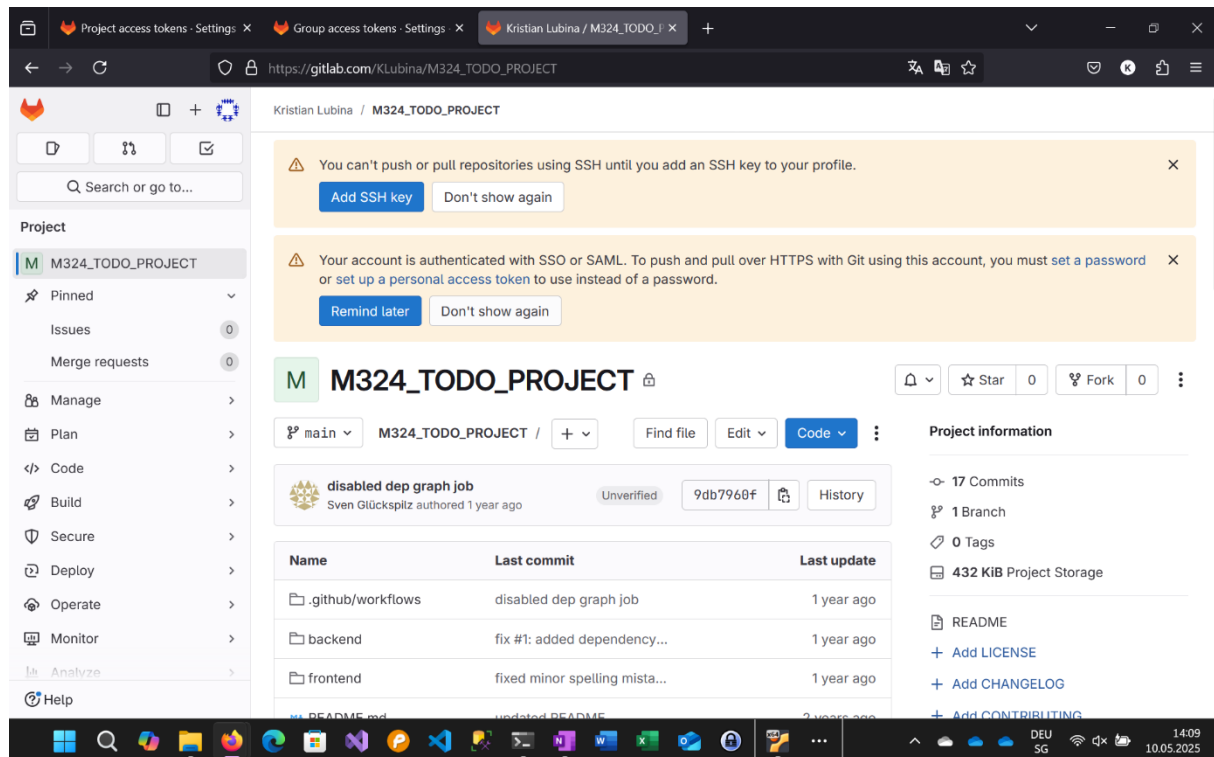
- Personal Access Token auf GitLab erstellt
- Token beim Push als Passwort verwendet



```
M324 (Sicherungspunkt 4) [wird ausgeführt] - Oracle VM VirtualBox
Datei Maschine Anzeige Eingabe Geräte Hilfe
Activities Terminal
Mai 10 14:03
kris@kris-VirtualBox: ~/M324_PROJEKT_TODO_LIST

fatal: Authentication failed for 'https://gitlab.com/KLubina/M324_TODO_PROJECT.git/'
kris@kris-VirtualBox:~/M324_PROJEKT_TODO_LIST$ git push -u origin main
Username for 'https://gitlab.com': Klubina
Password for 'https://gitlab.com':
remote: HTTP Basic: Access denied. If a password was provided for Git authentication, the password was incorrect or you're required to use a token instead of a p
assword. If a token was provided, it was either incorrect, expired, or improperly scoped. See https://gitlab.com/help/topics/git/troubleshooting_git.md#error-on-
git-fetch-http-basic-access-denied
fatal: Authentication failed for 'https://gitlab.com/KLubina/M324_TODO_PROJECT.git/'
kris@kris-VirtualBox:~/M324_PROJEKT_TODO_LIST$ git push -u origin main
Username for 'https://gitlab.com': Klubina
Password for 'https://gitlab.com':
remote: HTTP Basic: Access denied. If a password was provided for Git authentication, the password was incorrect or you're required to use a token instead of a p
assword. If a token was provided, it was either incorrect, expired, or improperly scoped. See https://gitlab.com/help/topics/git/troubleshooting_git.md#error-on-
git-fetch-http-basic-access-denied
fatal: Authentication failed for 'https://gitlab.com/KLubina/M324_TODO_PROJECT.git/'
kris@kris-VirtualBox:~/M324_PROJEKT_TODO_LIST$ git push -u origin main
Username for 'https://gitlab.com': Klubina
Password for 'https://gitlab.com':
Enumerating objects: 128, done.
Counting objects: 100% (128/128), done.
Delta compression using up to 6 threads
Compressing objects: 100% (76/76), done.
Writing objects: 100% (128/128), 432.08 KiB | 22.74 MiB/s, done.
Total 128 (delta 23), reused 128 (delta 23), pack-reused 0
remote: Resolving deltas: 100% (23/23), done.
remote:
remote: The private project Klubina/M324_TODO_PROJECT was successfully created.
remote:
remote: To configure the remote, run:
remote:   git remote add origin https://gitlab.com/KLubina/M324_TODO_PROJECT.git
remote:
remote: To view the project, visit:
remote:   https://gitlab.com/KLubina/M324_TODO_PROJECT
remote:
remote:
remote: To https://gitlab.com/KLubina/M324_TODO_PROJECT.git
* [new branch] main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
kris@kris-VirtualBox:~/M324_PROJEKT_TODO_LIST$
```

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## Welche Einstellungen vorgenommen wurden

### Java-Version

- Java 17 installiert und als Standard gesetzt
- JAVA\_HOME auf Java 17 gesetzt

### Git-Konfiguration

- Git user.email: "kristian.lubina@outlook.com"
- Git user.name: "KLubina"

### Remote Repository

- Origin von GitHub auf GitLab geändert
- Personal Access Token für GitLab-Authentifizierung erstellt

### Keine weiteren Anwendungseinstellungen

- Backend läuft auf Standard Port 8080
- Frontend läuft auf Standard Port 3000
- Keine Datenbankeinstellungen geändert