

# Common project steps #1/3

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1. Creating an initial project repository at `https://gitlab.mhdm-stuttgart.de`.

## Tip

Include your lecturer into your team providing at least read access.

2. Committing a `README.md` file describing the project's goals.

This includes a precise description of the prototype's desired functionality likely to be extended along with your project's progress.

## Common project steps #2/3

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3. Identify individual tasks like e.g.:

- Creating sample data.
- Setting up test scenarios.
- Selecting a documentation tool set.

4. Assign team members to tasks.

## Common project steps #3/3

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5. Implementation resulting in:

- A deployable piece of software
- Both functional and software internal documentation.

### **Tip**

Don't start this step too late. The »Real programmers don't document, the code is obvious« myth no longer works!

# UNIX grep sample

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```
> grep --color -i fraction App.java  
package de.hdmstuttgart.mi.sd1.fraction;
```

```
* Playing with fraction objects.
```

```
    final Fraction threeSeven =
```

```
        new Fraction(3, 7);
```

```
    final Fraction
```

# Database **grep** requirements

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- Connection profile handling
- Search level specification:
  - Whole database
  - Table(s)
  - Table column(s)
  - Recordsets
- Output formatting, limiting/filtering and paging

# Connection profile handling

Command	File ~/.dbgrep/Profiles/ <b>postgresTest</b> .cfg
dbgrep --profile <b>postgresTest</b> ...	host=nyserver.companynet.com port=5432 database=main_test_data user=testuser password=secret driver=Driver/postgresql-42.6.0.jar

# Search level specification

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dbgrep ... ❶

dbgrep ... --table User --table Stocks ❷...

dbgrep ... --column User.userId ❸ ...

dbgrep ... --table Stocks --column User.userId ... ❹

# Property based searches

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```
dbgrep ... --equal 237 ❶  
dbgrep ... --greater 4.43 ❷  
dbgrep ... --like 'Smit%' ❸  
dbgrep ... --like 'Smit%' --and --greater 4 ❹  
dbgrep ... --range [-3:17] ❺
```

❶ Search for integer values equal to 237. Depending on the corresponding search level we distinguish:

Database

Search all tables for compatible integer columns. Return either a list of all tables containing at least one occurrence of 237 or the data records themselves depending on an output formatting rule,

❷

❸

❹

❺