

User Manual

Group 17

ETSF01

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How to build and run the application

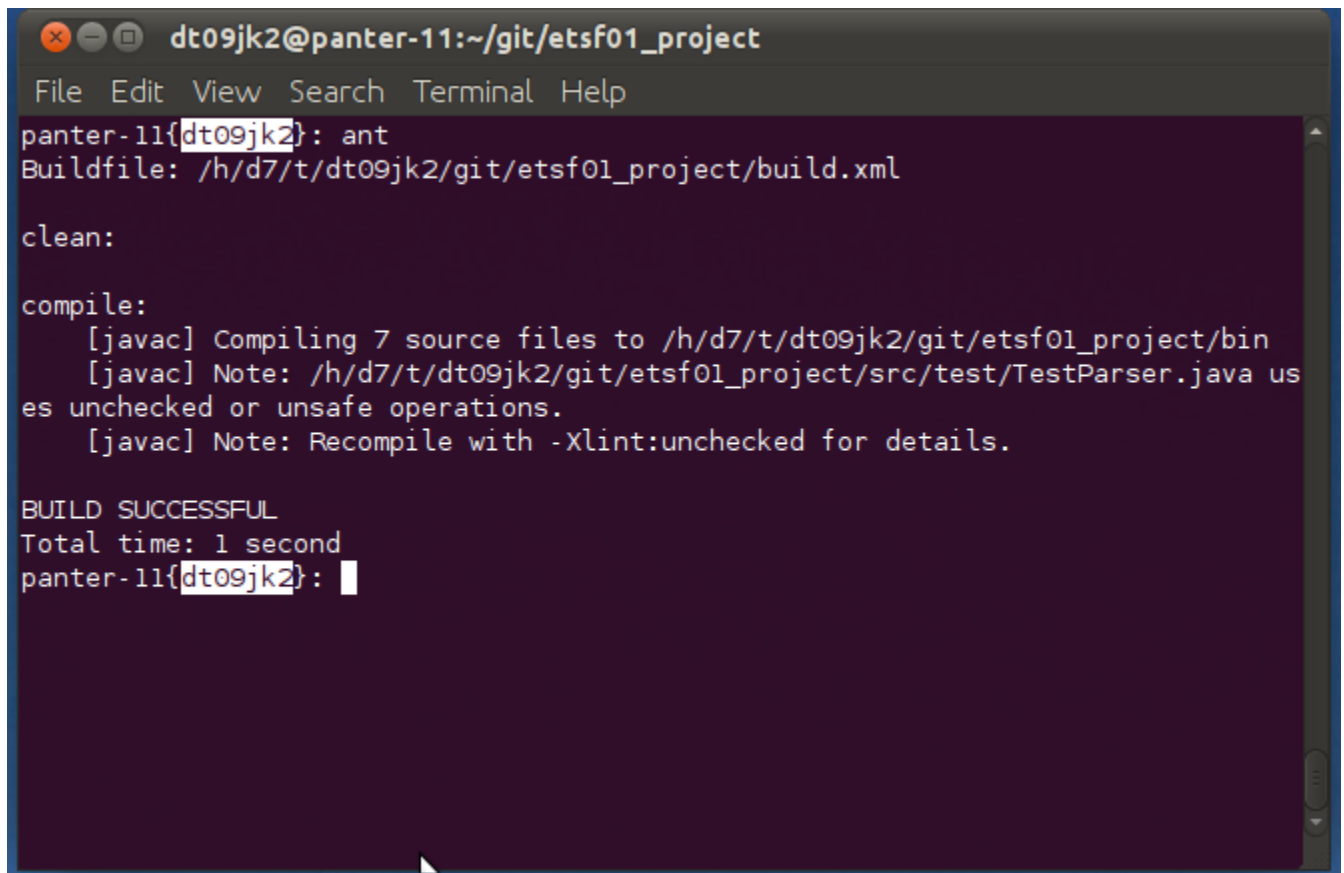
The application can be run in two ways, do either 1 or 2 to compile and run:

1.

```
$cd etsf01_project/
```

```
$ant
```

```
$/estimator.sh [<data filename>]
```

A terminal window titled 'dt09jk2@panter-11:~/git/etsf01_project' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the execution of 'ant' which triggers a 'clean' and then a 'compile' task. The compile task uses 'javac' to compile 7 source files to the bin directory. It includes a warning about unchecked or unsafe operations in TestParser.java and a note to recompile with -Xlint:unchecked. The build is successful, taking 1 second. The prompt returns to 'panter-11{dt09jk2}: ' with a cursor.

```
dt09jk2@panter-11:~/git/etsf01_project
File Edit View Search Terminal Help
panter-11{dt09jk2}: ant
Buildfile: /h/d7/t/dt09jk2/git/etsf01_project/build.xml

clean:

compile:
    [javac] Compiling 7 source files to /h/d7/t/dt09jk2/git/etsf01_project/bin
    [javac] Note: /h/d7/t/dt09jk2/git/etsf01_project/src/test/TestParser.java us
es unchecked or unsafe operations.
    [javac] Note: Recompile with -Xlint:unchecked for details.

BUILD SUCCESSFUL
Total time: 1 second
panter-11{dt09jk2}: 
```

Figure 1: Building the application

The estimator.sh command will present an interactive interface where you will answer questions about you project and set a threshold to calculate similarity, the questions are listed below.

Question	Explanation	Errors if bad input
"choose a number:"	Enter values for all parameters needed.	Bad number, try again.
"LOC, enter number:"	Enter the number of LOC in your project	N/A
"ACT_EFFORT, enter number:"	Enter the Act effort of your project	N/A
"Threshold, enter number(0-100):"	Type the threshold to be to be used to calculate the similarity	N/A

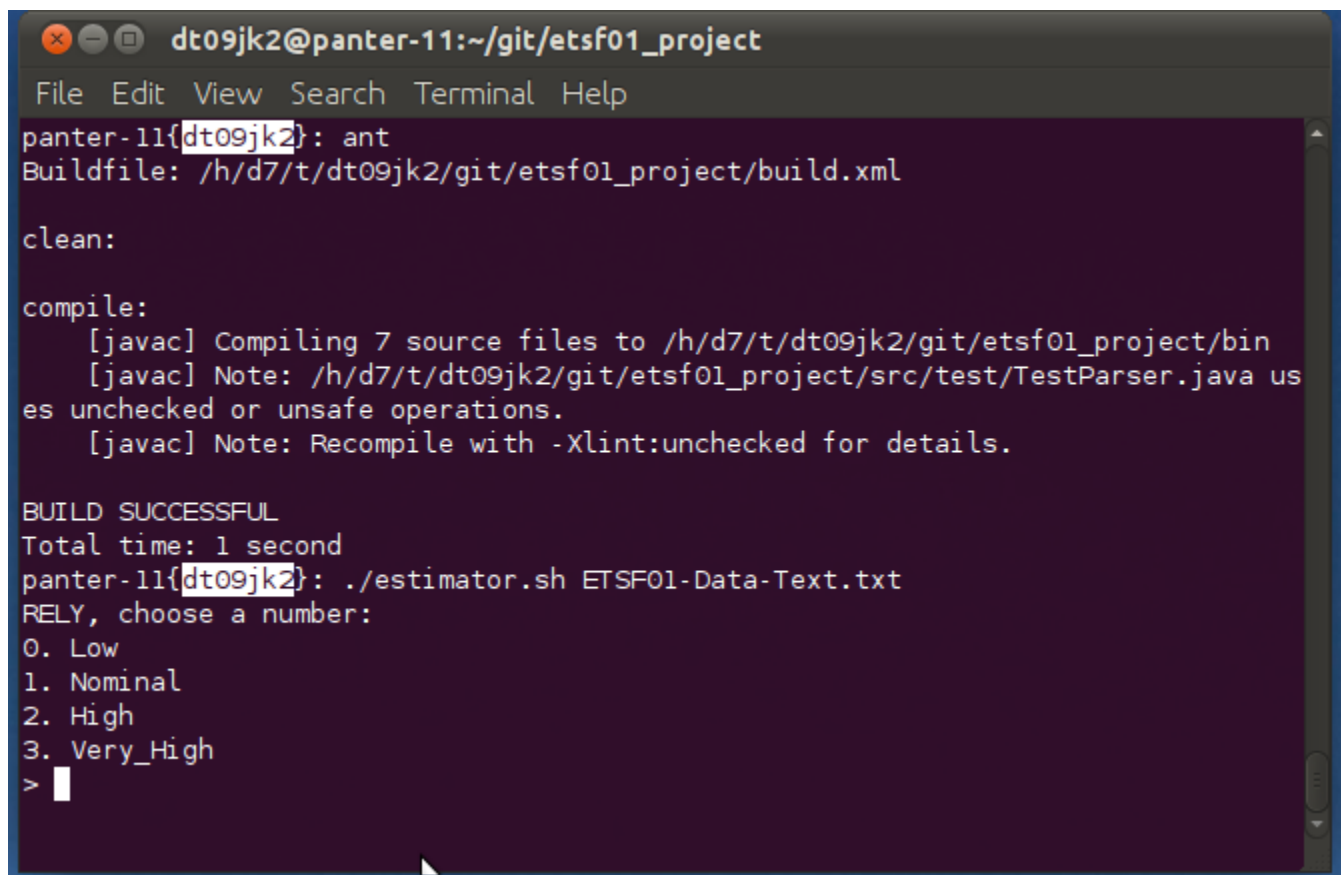
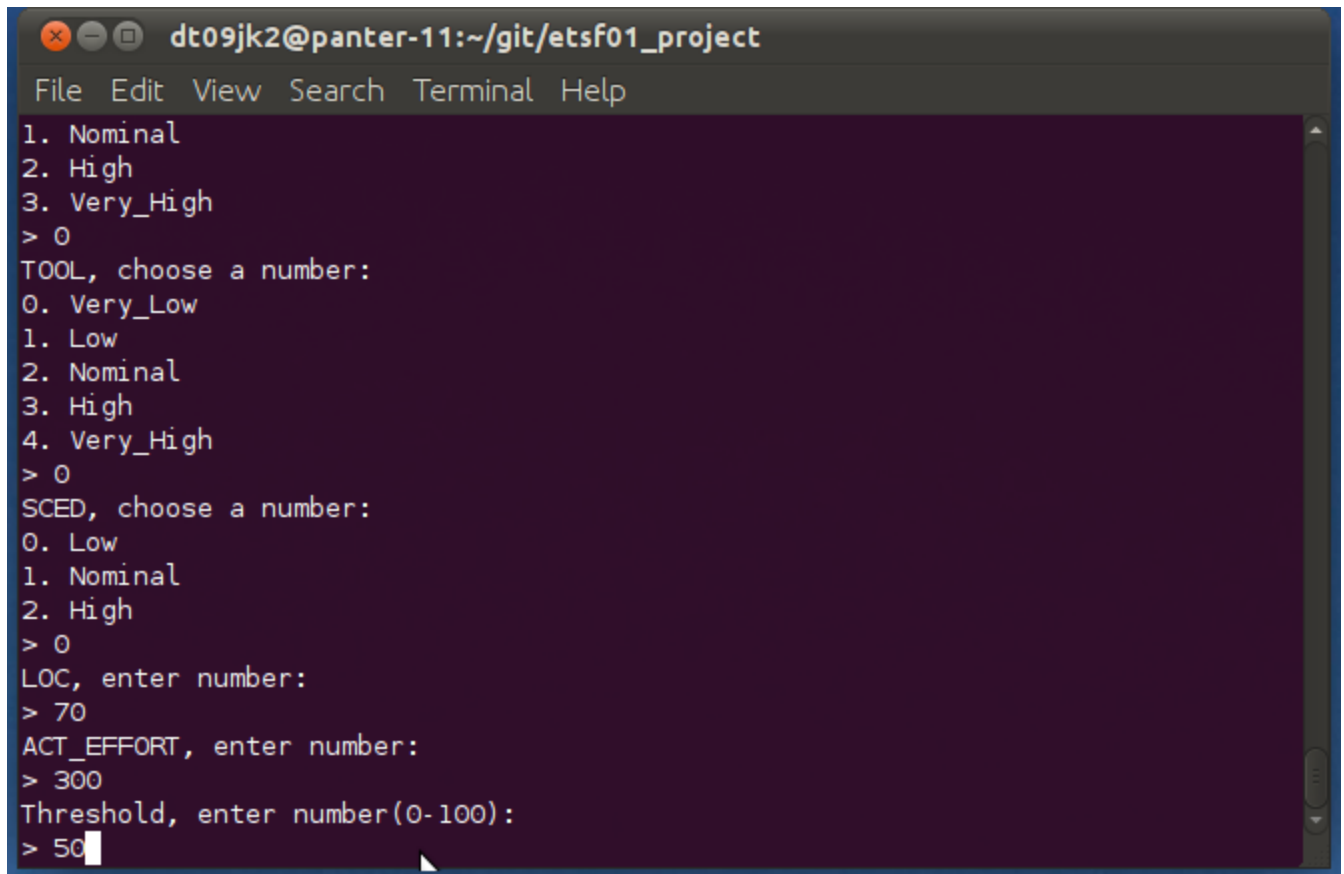
A terminal window titled 'dt09jk2@panter-11:~/git/etsf01_project' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the execution of 'ant' which runs a build process. It displays messages for 'clean:', 'compile:', and 'BUILD SUCCESSFUL'. The total time is 1 second. Then, the user runs './estimator.sh ETSF01-Data-Text.txt'. The script prompts 'RELY, choose a number:' and lists four options: 0. Low, 1. Nominal, 2. High, 3. Very_High. A cursor is visible on the line '>'.

Figure 2: Enter characteristics for the project to be evaluated

A terminal window titled 'dt09jk2@panter-11:~/git/etsf01_project' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows a script execution with several menu-driven prompts. The first menu has options 1. Nominal, 2. High, 3. Very_High, and a '> 0' input. The second menu is for 'TOOL' with options 0. Very_Low, 1. Low, 2. Nominal, 3. High, 4. Very_High, and a '> 0' input. The third menu is for 'SCED' with options 0. Low, 1. Nominal, 2. High, and a '> 0' input. The fourth prompt is 'LOC, enter number:' with a '> 70' input. The fifth prompt is 'ACT_EFFORT, enter number:' with a '> 300' input. The sixth prompt is 'Threshold, enter number(0-100):' with a '> 50' input and a cursor at the end.

```
dt09jk2@panter-11:~/git/etsf01_project
File Edit View Search Terminal Help
1. Nominal
2. High
3. Very_High
> 0
TOOL, choose a number:
0. Very_Low
1. Low
2. Nominal
3. High
4. Very_High
> 0
SCED, choose a number:
0. Low
1. Nominal
2. High
> 0
LOC, enter number:
> 70
ACT_EFFORT, enter number:
> 300
Threshold, enter number(0-100):
> 50
```

Figure 3: Enter Lines of code, Act effort and threshold

2.

The application can also be run with the following commands

```
$cd etsf01_project/
$ant
$./config.sh | ./estimator.sh [<data filename>]
```

This is a static configuration from the script config.sh that will be fed to the program, hence you will not have to enter numbers into the program. However you can edit the values in the script config.sh yourself. How to alter these values are commented in the script.

The application will return the following if executed correctly

Attributes choosen by the user:

"User attribute is: <attributes> "

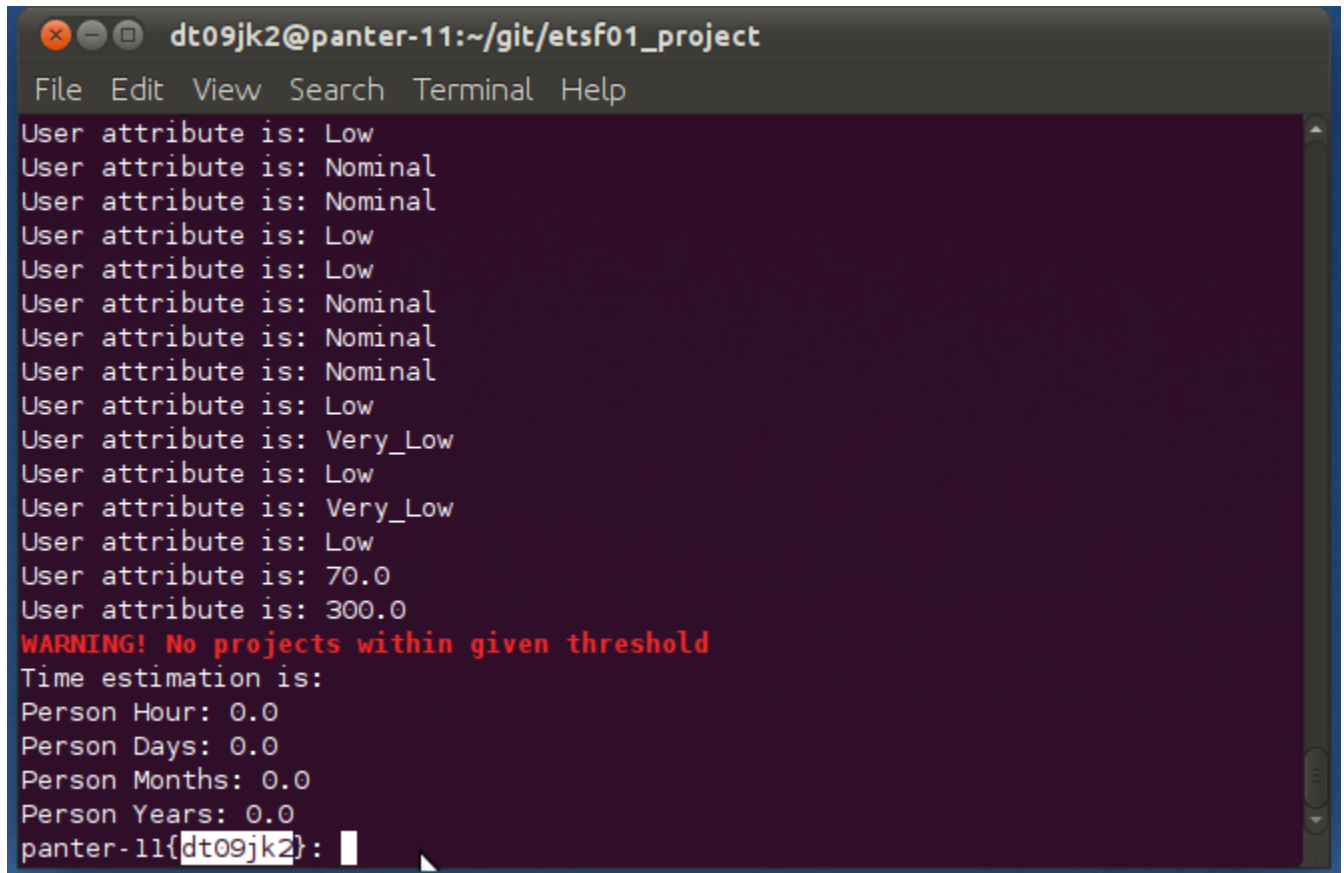
How many similiar projects found:

"Found <Number of> similar project(s). ");

If no projects are within the given threshold provided by the user the program will print

“WARNING! No projects within given threshold”

No time estimation will be performed if this occurs

A terminal window titled 'dt09jk2@panter-11:~/git/etsf01_project' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal output lists user attributes: 'User attribute is: Low', 'User attribute is: Nominal', 'User attribute is: Nominal', 'User attribute is: Low', 'User attribute is: Low', 'User attribute is: Nominal', 'User attribute is: Nominal', 'User attribute is: Nominal', 'User attribute is: Low', 'User attribute is: Very_Low', 'User attribute is: Low', 'User attribute is: Very_Low', 'User attribute is: Low', 'User attribute is: 70.0', and 'User attribute is: 300.0'. This is followed by a red warning message: 'WARNING! No projects within given threshold'. Below this, it says 'Time estimation is:' followed by 'Person Hour: 0.0', 'Person Days: 0.0', 'Person Months: 0.0', and 'Person Years: 0.0'. The prompt 'panter-11{dt09jk2}: ' is visible at the bottom.

```
dt09jk2@panter-11:~/git/etsf01_project
File Edit View Search Terminal Help
User attribute is: Low
User attribute is: Nominal
User attribute is: Nominal
User attribute is: Low
User attribute is: Low
User attribute is: Nominal
User attribute is: Nominal
User attribute is: Nominal
User attribute is: Low
User attribute is: Very_Low
User attribute is: Low
User attribute is: Very_Low
User attribute is: Low
User attribute is: 70.0
User attribute is: 300.0
WARNING! No projects within given threshold
Time estimation is:
Person Hour: 0.0
Person Days: 0.0
Person Months: 0.0
Person Years: 0.0
panter-11{dt09jk2}: 
```

The time estimation will be printed in the following format:

```
"Time estimation is: "
"Person Hour: <Amount of personhours> "
"Person Days: <Amount of persondays> "
"Person Months: <Amount of personmonths>"
"Person Years: <Amount of personmonths> "
```