

Screenshots of MiniGit

The screenshot shows the MiniGit interface in a dark-themed code editor. The Explorer sidebar on the left lists files: Commit.class, Commit.java, Main.class, Main.java, Repository.class, and Repository.java. The main editor area displays the `Commit.java` file:

```
public class Commit{
    String message;
    String timestamp;
    HashMap<String, String> snapshot;
    Commit parent;
    public Commit(String commitID, String message,HashMap<String, String> snapshot, Commit parent){
        this.commitID=commitID;
        this.message=message;
        this.snapshot=snapshot;
        this.parent=parent;
    }
}
```

The terminal tab at the bottom shows the following session:

```
PS D:\Minigit> javac Main.java
>> java Main
Initialized empty Minigit repository on branch 'main'.
```

==== Minigit Console ====
Type 'help' to see all commands.
> help
==== Available Commands ====
write <filename> - Create or overwrite file (multi-line input)
read <filename> - Display file content
edit <filename> - Overwrite entire file content
append <filename> - Add content to end of file
delete <filename> - Remove file from working directory
add <filename> - Stage file for commit
commit <message> - Create new commit
log - Show commit history
status - Show staged, modified, untracked files
checkout <ID|HEAD> - Restore old commit or latest commit
branch <name> - Create new branch
switch <name> - Switch to another branch
list-branches - Display all branches
diff <c1> <c2> - Show added / removed / modified files
diff-content <c1> <c2> - Show actual line differences
show <commitID> - Show full snapshot of a commit

Ln 21, Col 1 Spaces: 4 UTF-8 CRLF (Java)

The screenshot shows the MiniGit interface in a dark-themed code editor. The Explorer sidebar on the left lists files: Commit.class, Commit.java, Main.class, Main.java, Repository.class, and Repository.java. The main editor area displays the `Commit.java` file:

```
diff-content <c1> <c2> - Show actual line differences  
show <commitID> - Show full snapshot of a commit  
show-working - View working directory files  
help - Show all commands  
exit - Quit Minigit  
=====  
> write notes.txt  
Enter content for notes.txt (type END on a new line to finish):  
Today I learned Trees, Graphs, and Git internals.  
More topics to learn soon!  
END  
Written (multi-line) to notes.txt  
> add notes.txt  
Staged: notes.txt  
> commit first commit  
[main] Commit 9d26a6  
Message: first commit  
>  
> status  
==== Staged Files ====  
==== Modified Files ====  
==== Untracked Files ====  
> read notes.txt  
notes.txt  
Today I learned Trees, Graphs, and Git internals.  
More topics to learn soon!  
> show-working  
==== Working Directory ====  
File: notes.txt  
Today I learned Trees, Graphs, and Git internals.  
More topics to learn soon!  
-----  
> log  
Commit 9d26a6  
Message: first commit  
Time: 2025-11-19 14:29:14  
-----
```

Ln 21, Col 1 Spaces: 4 UTF-8 CRLF (Java)

```
< File Edit Selection View Go Run Terminal Help <- > MiniGit PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
> edit notes.txt
Existing content:
Today I learned Trees, Graphs, and Git internals.
More topics to learn soon!

Enter new content (type END on a new line to finish):
Updated notes after learning diff.
END
Updated content in notes.txt
> status
*** Staged Files ***
notes.txt

*** Modified Files ***
notes.txt

*** Untracked Files ***
> commit updated notes
Nothing to commit. Staging area is empty.
> write intro.txt
Enter content for intro.txt (type END on a new line to finish):
Hello, this is an intro file.
END
Written (multi-line) to intro.txt
> status
*** Staged Files ***

*** Modified Files ***
notes.txt

*** Untracked Files ***
intro.txt
> delete intro.txt
status
Deleted file: intro.txt
> *** Staged Files ***

*** Modified Files ***
notes.txt

*** Untracked Files ***
> status
```

```
< File Edit Selection View Go Run Terminal Help <- > MiniGit PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
> status
*** Staged Files ***
notes.txt

*** Modified Files ***
notes.txt

*** Untracked Files ***
> append notes.txt
Existing content:
Updated notes after learning diff.

Enter content to append (type END on a new line to finish):
This line was added for branch testing.
END
Appended content to notes.txt
> add notes.txt
Staged: notes.txt
> commit added append line
[main] commit b2426d
Message: added append line
> log
Commit b2426d
Message: added append line
Time: 2025-11-19 14:32:12
-----
Commit 9d26a6
Message: first commit
Time: 2025-11-19 14:29:14
-----
> diff b2426d 9d26a6
*** Added Files ***
*** Removed Files ***
*** Modified Files ***
notes.txt
> diff-content b2426d 9d26a6
```

The screenshot shows the VS Code interface with the following details:

- File Explorer:** Shows files like Commit.class, Commit.java, Main.class, Main.java, Repository.class, and Repository.java.
- Terminal:** The active tab, showing a sequence of Git commands:
 - Error: You have unstage modifications. Commit or discard changes before switching.
 - > checkout HEAD
 - Checked out to HEAD (Latest commit).
 - > switch new
 - Switched to branch 'new'.
 - > list branches
 - Unknown command. Type 'help' to see list of commands.
 - > list-branches
 - == Branches ==
 - new *
 - main
 - > write featureA.txt
 - Enter content for featureA.txt (type END on a new line to finish):
This file exists only on featureA branch.
END
 - Written (multi-line) to featureA.txt
 - > add featureA.txt
 - Staged: featureA.txt
 - > commit added branch file
[new] Commit 3e7cf7
Message: added branch file
 - > switch main
 - Switched to branch 'main'.
 - > show-working
 - == Working Directory ==
- Output:** Shows a note about notes.txt being updated after learning diff.
- Status Bar:** Shows Java: Ready, Ln 21, Col 1, Spaces: 4, UTF-8, CR LF, and a Java icon.

The screenshot shows a terminal window titled "MiniGit" with the "TERMINAL" tab selected. The terminal output displays a Git commit history:

```
Switched to branch 'main'.
> log
Commit b2426d
Message: added append line
Time: 2025-11-19 14:32:12
-----
Commit 9d25a6
Message: first commit
Time: 2025-11-19 14:29:14
-----
> switch new
> switch to branch 'new'.
> log
Commit 3e7cf7
Message: added branch file
Time: 2025-11-19 14:37:22
-----
Commit b2426d
Message: added append line
Time: 2025-11-19 14:32:12
-----
Commit 9d25a6
Message: first commit
Time: 2025-11-19 14:29:14
> diff b2426d 3e7cf7

== Added Files ==
featureA.txt

== Removed Files ==

== Modified Files ==
> diff-content b2426d 3e7cf7

== Content Differences ==
No content differences found.
> exit
Exiting Minigit> PS D:\Minigit>
```

Below the terminal, the status bar shows "Ln 21, Col 1" and "Java: Ready".