Федеральное государственное бюджетное образовательное учреждение высшего образования «Национальный исследовательский университет «МЭИ»

Институт информационных и вычислительных технологий

Кафедра Управления и интеллектуальных технологий

**Отчёт по лабораторной работе № 2**

**По курсу «Разработка программного обеспечения систем управления»**

**«Система контроля версий Git»**

Выполнила студентка группы А-02-19

Выполнил

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Проверили

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Москва 2020

Компьютер ALICE:

Вход в терминал и создание структуры каталогов

Сережа@▒▒ MINGW32 ~/Desktop/lab 02

$ mkdir alice //Cоздание каталога

Сережа@▒▒ MINGW32 ~/Desktop/lab 02

$ mkdir bob

Сережа@▒▒ MINGW32 ~/Desktop/lab 02

$ cd alice

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice

$ mkdir project

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice

$ cd project

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project

$ cd ..

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice

$ cd project

Инициализация репозитария и настройка Git

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project

$ git init

Initialized empty Git repository in C:/Users/Сережа.ПК/Desktop/lab 02/alice/project/.git/

//Инициализируем репозитарий в текущем каталоге (project)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git config user.name 'Alice (PotashovSE)' // Настроим репозитарий Алисы, чтобы коммиты были от ее имени

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git config user.email 'alice@example.com'

Создание коммитов

Занесение файлов под контроль версий

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git status // просмотрим состояние рабочей копии

On branch master // мы находимся на ветке master

No commits yet // История не содержит еще коммитов

Untracked files: // В рабочей копии замечены файл, но Git их не отслеживает

(use "git add ..." to include in what will be committed)

bin/

main.cpp

obj/

project.cbp

nothing added to commit but untracked files present (use "git add" to track) //коммитить нечего, но есть не отслеживаемые файлы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git add main.cpp //Добавим файл main.cpp в отслеживаемые (в индекс)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git status

On branch master

No commits yet

Changes to be committed: // Git начал отслеживать файл

(use "git rm --cached ..." to unstage)

new file: main.cpp

Untracked files:

(use "git add ..." to include in what will be committed)

bin/

obj/

project.cbp

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'code: загатовка программы'

[master (root-commit) cad3a76] code: загатовка программы

1 file changed, 9 insertions(+)

create mode 100644 main.cpp //Сводная статистика изменений

Составление сообщений к коммитам

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git add project.cbp

warning: LF will be replaced by CRLF in project.cbp.

The file will have its original line endings in your working directory //Git хранит файлы в немного измененном виде, чтобы обеспечивать удобную работу с репозитарием в любой операционной системе

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'build: update CMake version' // добавлен файл проекта

[master 49bd6e5] build: update CMake version

1 file changed, 42 insertions(+)

create mode 100644 project.cbp

Создание коммитов с изменениями

$ git status

On branch master

Changes not staged for commit:

(use "git add ..." to update what will be committed)

(use "git checkout -- ..." to discard changes in working directory)

modified: main.cpp

Untracked files:

(use "git add ..." to include in what will be committed)

bin/

obj/

no changes added to commit (use "git add" and/or "git commit -a") //Отслеживаемый файл был изменен в рабочем каталоге, но пока не проиндексирован

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git add main.cpp

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'code: Enter A and B'

[master c5255b6] code: Enter A and B

1 file changed, 3 insertions(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git add -u

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'code: sum A and B'

[master 0c1ebba] code: sum A and B

1 file changed, 2 insertions(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -a -m 'code: difference A and B'

[master 5708ca8] code: difference A and B

1 file changed, 2 insertions(+), 1 deletion(-)

Игнорирование файлов

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git status

On branch master

Untracked files:

(use "git add ..." to include in what will be committed)

.gitignore // Git будет игнорировать присутствие каталога bin

obj/

project.depend

nothing added to commit but untracked files present (use "git add" to track)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git status

On branch master

Untracked files:

(use "git add ..." to include in what will be committed)

.gitignore // Git будет игнорировать присутствие каталога bin и obj

project.depend

nothing added to commit but untracked files present (use "git add" to track)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git add .gitignore

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'git'

[master 6afc131] git

1 file changed, 2 insertions(+)

create mode 100644 .gitignore

Просмотр истории

Работа с журналом репозитария

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --stat //показывает файлы, измененные в коммитах

commit 6afc131607ef6f97679174932d54077a7fc059e0 (HEAD -> master)

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:26:14 2020 +0300

git

.gitignore | 2 ++

1 file changed, 2 insertions(+)

commit 5974eb20a9233ac52206919d3cf42ea20dcd58f4

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:17:31 2020 +0300

code: difference A and B

main.cpp | 3 ++-

1 file changed, 2 insertions(+), 1 deletion(-)

commit b1c7cc142f61adcb2c4b422e9c5054f656e8cc03

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:13:04 2020 +0300

code: sum A and B

main.cpp | 3 ++-

1 file changed, 2 insertions(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --oneline --decorate

6afc131 (HEAD -> master) git

5974eb2 code: difference A and B

b1c7cc1 code: sum A and B

c5255b6 code: Enter A and B

49bd6e5 build: update CMake version

cad3a76 code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --oneline --decorate --all --graph

\* 6afc131 (HEAD -> master) git

\* 5974eb2 code: difference A and B

\* b1c7cc1 code: sum A and B

\* c5255b6 code: Enter A and B

\* 49bd6e5 build: update CMake version

\* cad3a76 code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log -- main.cpp // показывает затрагивающие main.cpp

commit 5974eb20a9233ac52206919d3cf42ea20dcd58f4

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:17:31 2020 +0300

code: difference A and B

commit b1c7cc142f61adcb2c4b422e9c5054f656e8cc03

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:13:04 2020 +0300

code: sum A and B

commit c5255b6181adee928dcae765ecc7db935860e835

Author: Alice (PotashovSE)

Date: Tue Mar 31 21:42:10 2020 +0300

code: Enter A and B

commit cad3a7619a4795a6f5aeecf9baff58a69efb0cf4

Author: Alice (PotashovSE)

Date: Tue Mar 31 21:27:48 2020 +0300

code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --grep "code:"

commit 5974eb20a9233ac52206919d3cf42ea20dcd58f4

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:17:31 2020 +0300

code: difference A and B

commit b1c7cc142f61adcb2c4b422e9c5054f656e8cc03

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:13:04 2020 +0300

code: sum A and B

commit c5255b6181adee928dcae765ecc7db935860e835

Author: Alice (PotashovSE)

Date: Tue Mar 31 21:42:10 2020 +0300

code: Enter A and B

commit cad3a7619a4795a6f5aeecf9baff58a69efb0cf4

Author: Alice (PotashovSE)

Date: Tue Mar 31 21:27:48 2020 +0300

code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --grep "build:"

commit 49bd6e5da47e6263457ef234b861abb9d5d7ebcb

Author: Alice (PotashovSE)

Date: Tue Mar 31 21:37:18 2020 +0300

build: update CMake version

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log -- project.cbp

commit 49bd6e5da47e6263457ef234b861abb9d5d7ebcb

Author: Alice (PotashovSE)

Date: Tue Mar 31 21:37:18 2020 +0300

build: update CMake version

Просмотр коммитов

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git show HEAD~1

commit 5974eb20a9233ac52206919d3cf42ea20dcd58f4

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:17:31 2020 +0300

code: difference A and B

diff --git a/main.cpp b/main.cpp

index 3502692..5f01cc3 100644

--- a/main.cpp

+++ b/main.cpp

@@ -7,6 +7,7 @@ int main()

cout << "Enter A and B: " << '\n';

int a, b;

cin >> a >> b;

- cout << "A + B = " << a + b << '\n';

+ cout << "A + B = " << a + b << '\n'

+ << "A - B = " << a - b << '\n';

return 0;

}

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git show master~1

commit 5974eb20a9233ac52206919d3cf42ea20dcd58f4

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:17:31 2020 +0300

code: difference A and B

diff --git a/main.cpp b/main.cpp

index 3502692..5f01cc3 100644

--- a/main.cpp

+++ b/main.cpp

@@ -7,6 +7,7 @@ int main()

cout << "Enter A and B: " << '\n';

int a, b;

cin >> a >> b;

- cout << "A + B = " << a + b << '\n';

+ cout << "A + B = " << a + b << '\n'

+ << "A - B = " << a - b << '\n';

return 0;

}

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git show 5974eb2

commit 5974eb20a9233ac52206919d3cf42ea20dcd58f4

Author: Alice (PotashovSE)

Date: Tue Mar 31 22:17:31 2020 +0300

code: difference A and B

diff --git a/main.cpp b/main.cpp

index 3502692..5f01cc3 100644

--- a/main.cpp

+++ b/main.cpp

@@ -7,6 +7,7 @@ int main()

cout << "Enter A and B: " << '\n';

int a, b;

cin >> a >> b;

- cout << "A + B = " << a + b << '\n';

+ cout << "A + B = " << a + b << '\n'

+ << "A - B = " << a - b << '\n';

return 0;

}

Просмотр изменений

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git diff

diff --git a/main.cpp b/main.cpp

index 5f01cc3..d2db237 100644

--- a/main.cpp // заголовок

+++ b/main.cpp

@@ -8,6 +8,7 @@ int main() // Обозначение места изменений в файле

int a, b;

cin >> a >> b;

cout << "A + B = " << a + b << '\n' // Измененная функция (для удобства чтения)

- << "A - B = " << a - b << '\n'; // Удаленные (-) и добавленные (+) строки

+ << "A - B = " << a - b << '\n'

+ << "A \* B = " << a \* b << '\n';

return 0;

}

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git diff HEAD~2

diff --git a/.gitignore b/.gitignore

new file mode 100644

index 0000000..4c7473d

--- /dev/null

+++ b/.gitignore

@@ -0,0 +1,2 @@

+/bin

+/obj

diff --git a/main.cpp b/main.cpp

index 3502692..d2db237 100644

--- a/main.cpp

+++ b/main.cpp

@@ -7,6 +7,8 @@ int main()

cout << "Enter A and B: " << '\n';

int a, b;

cin >> a >> b;

- cout << "A + B = " << a + b << '\n';

+ cout << "A + B = " << a + b << '\n'

+ << "A - B = " << a - b << '\n'

+ << "A \* B = " << a \* b << '\n';

return 0;

}

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git diff HEAD~2 HEAD

diff --git a/.gitignore b/.gitignore

new file mode 100644

index 0000000..4c7473d

--- /dev/null

+++ b/.gitignore

@@ -0,0 +1,2 @@

+/bin

+/obj

diff --git a/main.cpp b/main.cpp

index 3502692..5f01cc3 100644

--- a/main.cpp

+++ b/main.cpp

@@ -7,6 +7,7 @@ int main()

cout << "Enter A and B: " << '\n';

int a, b;

cin >> a >> b;

- cout << "A + B = " << a + b << '\n';

+ cout << "A + B = " << a + b << '\n'

+ << "A - B = " << a - b << '\n';

return 0;

}

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git diff cad3a76 5974eb2 // изменения между самым первым коммитом и коммитом, добавляющим вывод разности

diff --git a/main.cpp b/main.cpp

index b4392ec..5f01cc3 100644

--- a/main.cpp

+++ b/main.cpp

@@ -4,6 +4,10 @@ using namespace std;

int main()

{

- cout << "Hello world!" << endl;

+ cout << "Enter A and B: " << '\n';

+ int a, b;

+ cin >> a >> b;

+ cout << "A + B = " << a + b << '\n'

+ << "A - B = " << a - b << '\n';

return 0;

}

Откат изменений

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git add -u

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'code:input proizvedenie'

[master 49f9c28] code:input proizvedenie

1 file changed, 2 insertions(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git reset --hard HEAD~1 // Здесь HEAD~1 указывает на коммит, к которому нужно откатить состояние рабочей копии, а ключ --hard означает, что нужно привести рабочую копию точно к состоянию выбранного коммита

HEAD is now at 6afc131 git

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git checkout HEAD -- main.cpp // Уберем изменения в main.cpp другим способом — откатив этот файл к состоянию в последнем коммите (HEAD)

Обмен кодом через удаленное хранилище

Отправка проекта на GitHub

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git remote add origin https://github.com/PotashovSE/cs-lab02.git

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git push -u origin master

Enumerating objects: 18, done.

Counting objects: 100% (18/18), done.

Delta compression using up to 8 threads

Compressing objects: 100% (16/16), done.

Writing objects: 100% (18/18), 2.21 KiB | 188.00 KiB/s, done.

Total 18 (delta 2), reused 0 (delta 0)

remote: Resolving deltas: 100% (2/2), done.

To https://github.com/PotashovSE/cs-lab02.git

\* [new branch] master -> master

Branch 'master' set up to track remote branch 'master' from 'origin'.

Компьютер Боба:

Получение проекта с GitHub

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob

$ git clone https://github.com/PotashovSE/cs-lab02.git project //Клонируем проект

Cloning into 'project'...

remote: Enumerating objects: 18, done.

remote: Counting objects: 100% (18/18), done.

remote: Compressing objects: 100% (14/14), done.

remote: Total 18 (delta 2), reused 18 (delta 2), pack-reused 0

Unpacking objects: 100% (18/18), done.

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob

$ cd project

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git config user.name 'Bob (PotashovSE)'

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git config user.email 'bob@example.com'

Совместная работа над проектом без конфликтов правок

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git add main.cpp

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git commit -m 'code:input proizvedenie'

[master 7c8591c] code:input proizvedenie

1 file changed, 2 insertions(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git push //Отправила коммит на GitHub

Enumerating objects: 5, done.

Counting objects: 100% (5/5), done.

Delta compression using up to 8 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (3/3), 396 bytes | 198.00 KiB/s, done.

Total 3 (delta 1), reused 0 (delta 0)

remote: Resolving deltas: 100% (1/1), completed with 1 local object.

To https://github.com/PotashovSE/cs-lab02.git

6afc131..7c8591c master -> master

Компьютер Алисы:

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git fetch //Загрузка изменений

remote: Enumerating objects: 5, done.

remote: Counting objects: 100% (5/5), done.

remote: Compressing objects: 100% (2/2), done.

remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0

Unpacking objects: 100% (3/3), done.

From https://github.com/PotashovSE/cs-lab02

6afc131..7c8591c master -> origin/master

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --oneline --decorate --all --graph

\* 7c8591c (origin/master) code:input proizvedenie

\* 6afc131 (HEAD -> master) git

\* 5974eb2 code: difference A and B

\* b1c7cc1 code: sum A and B

\* c5255b6 code: Enter A and B

\* 49bd6e5 build: update CMake version

\* cad3a76 code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git pull --ff-only

Updating 6afc131..7c8591c

Fast-forward

main.cpp | 3 ++-

1 file changed, 2 insertions(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git add -u

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'code:input delenie'

[master 94ef82b] code:input delenie

1 file changed, 2 insertions(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git push

Enumerating objects: 5, done.

Counting objects: 100% (5/5), done.

Delta compression using up to 8 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (3/3), 375 bytes | 187.00 KiB/s, done.

Total 3 (delta 1), reused 0 (delta 0)

remote: Resolving deltas: 100% (1/1), completed with 1 local object.

To https://github.com/PotashovSE/cs-lab02.git

7c8591c..94ef82b master -> master

Компьютер Боба:

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git fetch

remote: Enumerating objects: 5, done.

remote: Counting objects: 100% (5/5), done.

remote: Compressing objects: 100% (2/2), done.

remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0

Unpacking objects: 100% (3/3), done.

From https://github.com/PotashovSE/cs-lab02

7c8591c..94ef82b master -> origin/master

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git log --oneline --decorate --all --graph

\* 94ef82b (origin/master, origin/HEAD) code:input delenie

\* 7c8591c (HEAD -> master) code:input proizvedenie

\* 6afc131 git

\* 5974eb2 code: difference A and B

\* b1c7cc1 code: sum A and B

\* c5255b6 code: Enter A and B

\* 49bd6e5 build: update CMake version

\* cad3a76 code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git pull --ff-only

Updating 7c8591c..94ef82b

Fast-forward

main.cpp | 3 ++-

1 file changed, 2 insertions(+), 1 deletion(-)

Разрешение конфликтов правок при совместной работе

Компьютер Алисы:

$ git add -u

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git commit -m 'code: Max'

[master d501bbd] code: Max

1 file changed, 10 insertions(+), 2 deletions(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git push

Enumerating objects: 5, done.

Counting objects: 100% (5/5), done.

Delta compression using up to 8 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (3/3), 449 bytes | 224.00 KiB/s, done.

Total 3 (delta 1), reused 0 (delta 0)

remote: Resolving deltas: 100% (1/1), completed with 1 local object.

To https://github.com/PotashovSE/cs-lab02.git

94ef82b..d501bbd master -> master

Компьютер Боба

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git add main.cpp

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git commit -m 'code:Min'

[master 686a0c4] code:Min

1 file changed, 10 insertions(+), 2 deletions(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git push

To https://github.com/PotashovSE/cs-lab02.git

! [rejected] master -> master (fetch first)

error: failed to push some refs to 'https://github.com/PotashovSE/cs-lab02.git'

hint: Updates were rejected because the remote contains work that you do

hint: not have locally. This is usually caused by another repository pushing

hint: to the same ref. You may want to first integrate the remote changes

hint: (e.g., 'git pull ...') before pushing again.

hint: See the 'Note about fast-forwards' in 'git push --help' for details. // удаленный репозитарий не принимает изменений: коммит Боба основан не на последнем существующем коммите

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git fetch

remote: Enumerating objects: 5, done.

remote: Counting objects: 100% (5/5), done.

remote: Compressing objects: 100% (2/2), done.

remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0

Unpacking objects: 100% (3/3), done.

From https://github.com/PotashovSE/cs-lab02

94ef82b..d501bbd master -> origin/master // ветка master раздвоилась

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git log --oneline --decorate --all --graph

\* 686a0c4 (HEAD -> master) code:Min

| \* d501bbd (origin/master, origin/HEAD) code: Max

|/

\* 94ef82b code:input delenie

\* 7c8591c code:input proizvedenie

\* 6afc131 git

\* 5974eb2 code: difference A and B

\* b1c7cc1 code: sum A and B

\* c5255b6 code: Enter A and B

\* 49bd6e5 build: update CMake version

\* cad3a76 code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git rebase origin/master

First, rewinding head to replay your work on top of it...

Applying: code:Min

Using index info to reconstruct a base tree...

M main.cpp

Falling back to patching base and 3-way merge...

Auto-merging main.cpp

CONFLICT (content): Merge conflict in main.cpp

error: Failed to merge in the changes.

hint: Use 'git am --show-current-patch' to see the failed patch

Patch failed at 0001 code:Min

Resolve all conflicts manually, mark them as resolved with

"git add/rm ", then run "git rebase --continue".

You can instead skip this commit: run "git rebase --skip".

To abort and get back to the state before "git rebase", run "git rebase --abort"

// в CodeBlocks нужно: Удалить метки конфликта: <<<< ..., ... >>>> и =====.

Отредактировать код так, чтобы он включал и правки Алисы, и правки Боба.

Убедиться, что программа компилируется и работает.

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master|REBASE 1/1)

$ git add main.cpp

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master|REBASE 1/1)

$ git rebase --continue

Applying: code:Min

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git log --oneline --decorate --all --graph

\* 2de307e (HEAD -> master) code:Min

\* d501bbd (origin/master, origin/HEAD) code: Max

\* 94ef82b code:input delenie

\* 7c8591c code:input proizvedenie

\* 6afc131 git

\* 5974eb2 code: difference A and B

\* b1c7cc1 code: sum A and B

\* c5255b6 code: Enter A and B

\* 49bd6e5 build: update CMake version

\* cad3a76 code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/bob/project (master)

$ git push

Enumerating objects: 5, done.

Counting objects: 100% (5/5), done.

Delta compression using up to 8 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (3/3), 427 bytes | 213.00 KiB/s, done.

Total 3 (delta 1), reused 0 (delta 0)

remote: Resolving deltas: 100% (1/1), completed with 1 local object.

To https://github.com/PotashovSE/cs-lab02.git

d501bbd..2de307e master -> master

Использование веток

.Компьютер Алисы:

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git branch double // создаём ветку double

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git checkout double

Switched to branch 'double' // переключаемся с ветки master на ветку double

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (double)

$ git commit -a -m 'code: A and B are double'

[double d876562] code: A and B are double

1 file changed, 1 insertion(+), 1 deletion(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (double)

$ git checkout master // переключаемся на ветку master

Switched to branch 'master'

Your branch is up to date with 'origin/master'.

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git pull

remote: Enumerating objects: 5, done.

remote: Counting objects: 100% (5/5), done.

remote: Compressing objects: 100% (2/2), done.

remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0

Unpacking objects: 100% (3/3), done.

From https://github.com/PotashovSE/cs-lab02

d501bbd..2de307e master -> origin/master

Updating d501bbd..2de307e

Fast-forward

main.cpp | 13 +++++++++++--

1 file changed, 11 insertions(+), 2 deletions(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git fetch

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git pull --ff-only

Updating d501bbd..2de307e

Fast-forward

main.cpp | 13 +++++++++++--

1 file changed, 11 insertions(+), 2 deletions(-)

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --oneline --decorate --all --graph

\* d876562 (double) code: A and B are double

| \* 2de307e (HEAD -> master, origin/master) code:Min

|/

\* d501bbd code: Max

\* 94ef82b code:input delenie

\* 7c8591c code:input proizvedenie

\* 6afc131 git

\* 5974eb2 code: difference A and B

\* b1c7cc1 code: sum A and B

\* c5255b6 code: Enter A and B

\* 49bd6e5 build: update CMake version

\* cad3a76 code: загатовка программы

$ git merge double // сливаем ветки double и master

Auto-merging main.cpp

CONFLICT (content): Merge conflict in main.cpp

Automatic merge failed; fix conflicts and then commit the result.

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master|MERGING)

$ git add main.cpp // Исправлены конфликты

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master|MERGING)

$ git merge --continue //Продолжаем сливание

[master ba56144] Merge branch 'double'

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git log --oneline --decorate --all --graph

\* ba56144 (HEAD -> master) Merge branch 'double'

|\

| \* d876562 (double) code: A and B are double

\* | 2de307e (origin/master) code:Min

|/

\* d501bbd code: Max

\* 94ef82b code:input delenie

\* 7c8591c code:input proizvedenie

\* 6afc131 git

\* 5974eb2 code: difference A and B

\* b1c7cc1 code: sum A and B

\* c5255b6 code: Enter A and B

\* 49bd6e5 build: update CMake version

\* cad3a76 code: загатовка программы

Сережа@▒▒ MINGW32 ~/Desktop/lab 02/alice/project (master)

$ git push

Enumerating objects: 10, done.

Counting objects: 100% (10/10), done.

Delta compression using up to 8 threads

Compressing objects: 100% (6/6), done.

Writing objects: 100% (6/6), 711 bytes | 177.00 KiB/s, done.

Total 6 (delta 2), reused 0 (delta 0)

remote: Resolving deltas: 100% (2/2), completed with 1 local object.

To https://github.com/PotashovSE/cs-lab02.git

2de307e..ba56144 master -> master