Федеральное государственное автономное образовательное учреждение высшего образования «Национальный исследовательский университет ИТМО»

Факультет программной инженерии и компьютерной техники

Лабораторная работа №2 по дисциплине

«Методы и средства программной инженерии»

Вариант 1007

Выполнили:

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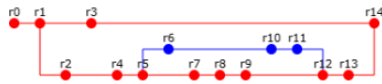
Факультет: ПИиКТ

Группа: P32312, P32302

Преподаватель:

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Задание:

Вариант 1007

Сконфигурировать в своём домашнем каталоге репозитории svn и git и загрузить в них начальную ревизию файлов с исходными кодами (в соответствии с выданным вариантом).

Воспроизвести последовательность команд для систем контроля версий svn и git, осуществляющих операции над исходным кодом, приведённые на блок-схеме.

При составлении последовательности команд необходимо учитывать следующие условия:

- Цвет элементов схемы указывает на пользователя, совершившего действие (красный - первый, синий - второй).
- Цифры над узлами - номер ревизии. Ревизии создаются последовательно.
- Необходимо разрешать конфликты между версиями, если они возникают.

Выполнение:

GIT

Коммиты	Команды
инициализация	mkdir mispi2 chmod -R 777 mispi2/ cd mispi2/ mkdir git chmod -R 777 git cd git git init git config receive.denyCurrentBranch ignore chmod -R 777 ./.git/
r0	git clone ssh://s336760@helios.cs.ifmo.ru:2222/home/studs/s336760/mispi2/git/.git/ git config --local user.email "sobolev_ivan@niuitmo.ru" git config --local user.name "Ivan Sobolev" cd git

	mkdir commit rm -rf commit/* | unzip commit0.zip -d commit git add commit/. git commit -m 'First commit(r0): Added new files' git push origin master
r1	rm -rf commit/* | unzip commit1.zip -d commit git add commit/. git commit -m 'Second commit(r1): Added functions ac() in B.java, hh() in C.java, ad() in F.java' git push origin master
r2	git checkout -b redBranch rm -rf commit/* | unzip commit2.zip -d commit git add commit/. git commit -m 'Third commit(r2): Deleted functions ac() in B.java, hh() in C.java, ad() in F.java' git push origin redBranch
r3	git checkout master rm -rf commit/* | unzip commit3.zip -d commit git add commit/. git commit -m 'Fourth commit(r3): Added new files; added functions ac(),dd() in B.java, hh(),ae() in C.java, ad(),bb() in F.java' git push origin master

r4	git checkout redBranch rm -rf commit/* | unzip commit4.zip -d commit git add commit/. git commit -m 'Fifth commit(r4): Deleted some files; deleted functions dd() in B.java,ae() in C.java, bb() in F.java' git push origin redBranch
r5	rm -rf commit/* | unzip commit5.zip -d commit git add commit/. git commit -m 'Sixth commit(r5): Added new files; added functions dd() in B.java,ae() in C.java, bb() in F.java' git push origin redBranch
r6	git clone ssh://s282509@helios.cs.ifmo.ru:2222/home/studs/s336760/mispi2/git/.git/ cd git git config --local user.email "niktog0@mail.ru" git config --local user.name "Sviatoslav Tiurin" git checkout redBranch git checkout -b blueBranch rm -rf commit/* | unzip commit6.zip -d commit git add commit/. git commit -m 'Seventh commit(r6): Deleted some files; deleted functions ac(),dd() in B.java, hh(), ae() in C.java, ad(), bb() in F.java' git push origin blueBranch

r7	rm -rf commit/* | unzip commit7.zip -d commit git add commit/. git commit -m 'Eigth commit(r7): Added new file; deleted some files; added functions ab() in B.java, cc() in C.java, mm() in F.java' git push origin redBranch
r8	rm -rf commit/* | unzip commit8.zip -d commit git add commit/. git commit -m 'Ninth commit(r8): Deleted file; added functions bb() in B.java, nn() in C.java, kk() in F.java' git push origin redBranch
r9	rm -rf commit/* | unzip commit9.zip -d commit git add commit/. git commit -m 'Tenth commit(r9): Added functions ll() in B.java, af() in C.java, cc() in F.java' git push origin redBranch
r10	rm -rf commit/* | unzip commit10.zip -d commit git add commit/. git commit -m 'Eleventh commit(r10): Added functions ac() in B.java, hh() in C.java, ad() in F.java' git push origin blueBranch
r11	rm -rf commit/* | unzip commit11.zip -d commit git add commit/. git commit -m 'Twelfth commit(r11): Added new file; added functions dd() in B.java, ae() in C.java, bb() in F.java' git push origin blueBranch

r12	git fetch
	git checkout blueBranch
	git checkout redBranch
	git merge blueBranch
	rm -rf commit/* | unzip commit12.zip -d commit
	git add commit/.
	git commit -m 'Thirteenth commit(r12): Changed J.java; added functions cc(),kk() in B.java, aa(),mm() in C.java, ae(),ff() in F.java'
	git push origin redBranch
r13	rm -rf commit/* | unzip commit13.zip -d commit
	git add commit/.
	git commit -m 'Fourteenth commit(r13): Added functions ae() in B.java, ac() in C.java, aa() in F.java, rr() in J.java'
	git push origin redBranch

r14	git fetch
	git checkout master
	git merge --no-edit redBranch
	КОНФЛИКТ
	Решаем конфликт руками
	git add commit/.
	git commit -m 'Solving conflicts and merge into master'
	rm -rf commit/* | unzip commit14.zip -d commit
	git add commit/.
	git commit -m 'Fifteenth commit(r14): Added functions ii(),pp() in B.java,ab(),rr() in C.java, nn(),af() in F.java,ae() in J.java; deleted functions ab(),ae() in B.java,ac() in C.java, mm() in F.java,rr() in J.java'
	git push origin master

SVN

Коммиты	Команды
инициализация	svnadmin create svn
	svn mkdir -m "trunk" file:///home/studs/s336760/mispi2-svn/svn/trunk
	svn mkdir -m "branches" file:///home/studs/s336760/mispi2-svn/svn/branches
	svn checkout file:///home/studs/s336760/mispi2-svn/svn/trunk/ workdir
r0	rm -rf workdir/* | unzip commit0.zip -d workdir

	cd workdir/ svn add * svn commit -m 'First commit(r0): Added new files' --username=Ivan
r1	cd .. rm -rf workdir/* | unzip commit1.zip -d workdir cd workdir/ svn add * svn commit -m 'Second commit(r1): Added functions ac() in B.java, hh() in C.java, ad() in F.java' --username=Ivan
r2	svn copy file:///home/studs/s336760/mispi2-svn/svn/trunk file:///home/studs/s336760/mispi2-svn/svn/branches/redBranch -m "redBranch" svn switch file:///home/studs/s336760/mispi2-svn/svn/branches/redBranch cd .. rm -rf workdir/* | unzip commit2.zip -d workdir cd workdir/ svn add * svn commit -m 'Third commit(r2): Deleted functions ac() in B.java, hh() in C.java, ad() in F.java' --username=Ivan
r3	svn switch file:///home/studs/s336760/mispi2-svn/svn/trunk cd .. rm -rf workdir/* | unzip commit3.zip -d workdir cd workdir/ svn add *

	svn commit -m 'Fourth commit(r3): Added new files; added functions ac(),dd() in B.java, hh(),ae() in C.java, ad(),bb() in F.java' --username=Ivan
r4	svn switch file:///home/studs/s336760/mispi2-svn/svn/branches/redBranch cd .. rm -rf workdir/* | unzip commit4.zip -d workdir cd workdir/ svn add * svn commit -m 'Fifth commit(r4): Deleted some files; deleted functions dd() in B.java,ae() in C.java, bb() in F.java' --username=Ivan
r5	cd .. rm -rf workdir/* | unzip commit5.zip -d workdir cd workdir/ svn add * svn commit -m 'Sixth commit(r5): Added new files; added functions dd() in B.java,ae() in C.java, bb() in F.java' --username=Ivan
r6	svn copy file:///home/studs/s336760/mispi2-svn/svn/branches/redBranch file:///home/studs/s336760/mispi2-svn/svn/branches/blueBranch -m "blueBranch" svn switch file:///home/studs/s336760/mispi2-svn/svn/branches/blueBranch cd .. rm -rf workdir/* | unzip commit6.zip -d workdir cd workdir/

	svn add * svn commit -m 'Seventh commit(r6): Deleted some files; deleted functions ac(),dd() in B.java, hh(), ae() in C.java, ad(), bb() in F.java' --username=Svyat
r7	svn switch file:///home/studs/s336760/mispi2-svn/svn/branches/redBranch cd .. rm -rf workdir/* | unzip commit7.zip -d workdir cd workdir/ svn add * svn commit -m 'Eigth commit(r7): Added new file; deleted some files; added functions ab() in B.java, cc() in C.java, mm() in F.java' --username=Ivan
r8	cd .. rm -rf workdir/* | unzip commit8.zip -d workdir cd workdir/ svn add * svn commit -m 'Ninth commit(r8): Deleted file; added functions bb() in B.java, nn() in C.java, kk() in F.java' --username=Ivan
r9	cd .. rm -rf workdir/* | unzip commit9.zip -d workdir cd workdir/ svn add * svn commit -m 'Tenth commit(r9): Added functions ll() in B.java, af() in C.java, cc() in F.java' --username=Ivan

r10	svn switch file:///home/studs/s336760/mispi2-svn/svn/branches/blueBranch cd .. rm -rf workdir/* | unzip commit10.zip -d workdir cd workdir/ svn add * svn commit -m 'Eleventh commit(r10): Added functions ac() in B.java, hh() in C.java, ad() in F.java' --username=Svyat
r11	cd .. rm -rf workdir/* | unzip commit11.zip -d workdir cd workdir/ svn add * svn commit -m 'Twelfth commit(r11): Added new file; added functions dd() in B.java, ae() in C.java, bb() in F.java' --username=Svyat
r12	svn switch file:///home/studs/s336760/mispi2-svn/svn/branches/redBranch svn up svn merge --force file:///home/studs/s336760/mispi2-svn/svn/branches/blueBranch cd .. rm -rf workdir/* | unzip commit12.zip -d workdir cd workdir/ svn add * svn commit -m 'Thirteenth commit(r12): Changed J.java; added functions cc(),kk() in B.java, aa(),mm() in C.java, ae(),ff() in F.java' --username=Ivan
r13	cd .. rm -rf workdir/* | unzip commit13.zip -d workdir

	cd workdir/ svn add * svn commit -m 'Fourteenth commit(r13): Added functions ae() in B.java, ac() in C.java, aa() in F.java, rr() in J.java' --username=Ivan
r14	svn switch file:///home/studs/s336760/mispi2-svn/svn/trunk svn up svn merge --force file:///home/studs/s336760/mispi2-svn/svn/branches/redBranch ==КОНФЛИКТ== svn resolved B.java svn resolved C.java svn resolved F.java svn commit -m 'Solved conflicts' --username=Ivan cd .. rm -rf workdir/* | unzip commit14.zip -d workdir cd workdir/ svn add * svn commit -m 'Fifteenth commit(r14): Added functions ii(),pp() in B.java,ab(),rr() in C.java, nn(),af() in F.java,ae() in J.java; deleted functions ab(),ae() in B.java,ac() in C.java, mm() in F.java,rr() in J.java' --username=Ivan

Вывод:

В ходе выполнения данной лабораторной работы мы познакомились с системами контроля версий SVN и Git. Git более понятный, поэтому в будущем отдадим предпочтение ему.