git: updates were rejected because the remote contains work that you do not have locally

Asked 6 years, 6 months ago   Active 3 months ago   Viewed 280k times

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I'm working on a team with a few developers using git on BitBucket. We are all working on a `dev` branch, not pushing to `master` until a release.

One of the developers committed incorrect code that overwrote my own by accident, and now I am trying to push the correct code back to the repo. I have been reading on this error for a few days now, I can't push to the repo anymore because I am getting the following error:

```
 ! [rejected]        master -> dev (fetch first)
error: failed to push some refs to 'https://myusername@bitbucket.org/repo_user
/repo_name.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.
```

I follow the instructions and `pull`, but then I receive a merge conflict. After entering a message for the merge conflict, my local code is now the incorrect code that the other developer uploaded by accident (as expected from the `pull`). So I replace the incorrect code with the backup I copied before commiting, and when I try to push again, I get the same error.

It is really frustrating, I really want to help out my team and contribute, but I can't because of this error. Does anyone know how to solve this issue? I would very much appreciate any help.

These are the commands I run in order to commit, if it helps anyone out:

```
git pull remotename master:dev
git add --all
git commit -m "some message"
git pull remotename master:dev
git push remotename master:dev
```

I would have thought that if I kept this order, I would not receive merge conflicts. I guess I was wrong. Thanks again

Update: I should add that I have looked for a few hours on Google and stackoverflow, and followed different instructions, but I still can't `push` to the `dev` branch.

git   version-control   merge   commit   bitbucket

edited Aug 1 '18 at 11:29   asked Jun 23 '14 at 0:44

Himanshu   delos
8,336   4   31   53   **1,783**   3   12   24

51

`git pull <remote> master:dev` will fetch the `remote/master` branch and merge it into your `local/dev` branch.

`git pull <remote> dev` will fetch the `remote/dev` branch, and merge it into your current branch.

I think you said the conflicting commit is on `remote/dev`, so that is the branch you probably intended to fetch and merge.

In that case, you weren't actually merging the conflict into your local branch, which is sort of weird since you said you saw the incorrect code in your working copy. You might want to check what is going on in `remote/master`.

answered Jun 23 '14 at 2:45

Jeff
1,314   10   7

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1   Wow...I never knew that. But it makes a lot of sense now. The master branch was also incorrect, so your answer clears my whole question. I'm still a bit new to git. Thanks a lot for telling me the difference between those two! – delos Jun 23 '14 at 2:49 ✏

7   Best option for me was `git pull --rebase` . – derekmx271 Jul 2 '15 at 22:07

191

You can override any checks that git does by using "force push". Use this command in terminal

    git push -f origin master

However, you will potentially ignore the existing work that is in remote - you are effectively rewriting the remote's history to be exactly like your local copy.

edited Aug 21 '20 at 23:04   answered Feb 13 '17 at 7:46

stolsvik   Donal
4,943   7   40   51   **3,612**   2   16   25

✕

1/5/21, 2:00 AM

60   Using force push (-f) flag is very dangerous and it should never be part of your regular work flow
      – Spaideri Apr 20 '17 at 7:13

7   Downvoted since I'm missing some warning in this answer. – Melebius Apr 19 '18 at 9:43

3   Ooh! This force the repository to rewrite itself. – Azarsa May 7 '18 at 11:35

3   I had the same error with github and I fixed it with this command, @theeastcoastwest why are you
      saying this is dangerous? what is your reason" – simon Jan 7 '20 at 7:45

5   @simon this is dangerous because it ignores the work that is in remote and it forces your changes onto
      the repo. So if you don't want to mess up your team's work, DO NOT force push. – Gásten Feb 19 '20
      at 13:30

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49

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It happens when we are trying to push to remote repository but has created a new file on
remote which has not been pulled yet, let say `Readme` . In that case as the error says

git rejects the update

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as we have not taken updated remote in our local environment. So Take pull first from remote

```
git pull
```

It will update your local repository and add a new `Readme` file. Then Push updated changes to
remote

```
git push origin master
```

edited Jun 27 '18 at 14:29   answered Apr 23 '17 at 18:01

Himanshu
8,336 4 31 53

I was doing `git pull origin develop` into my local develop branch, but now, just doing `git
pull` it works fine to me, I dunno why. – Alex Jun 13 '18 at 15:10

because by default if your local branch is synched with remote branch and you are checked out in that
branch you don't need to specify a branch just `git pull` is enough – Himanshu Jun 13 '18 at 17:26

This usually happens when the repo contains some items that are not there locally. So in order to push our changes, in this case we need to integrate the remote changes and then push.

14

So create a pull from remote

```
git pull origin master
```

Then push changes to that remote

```
git push origin master
```

answered Mar 6 '19 at 8:34

Sravya
170   1   6

Force to push

10

git push -f origin master

answered Jan 12 '19 at 14:24

Samir Poudel
179   1   8

3   This should probably come with a warning. – Chris Feb 14 '20 at 21:32

    Even if this surely will work, would you mind explaining it? Could there possibly be any danger in doing this? If yes, explain that even further, like: "Folks, be sure that you will loose commits using this" – Nico Haase Oct 5 '20 at 15:35

I fixed it, I'm not exactly sure what I did. I tried simply pushing and pulling using:

8

`git pull <remote> dev` instead of `git pull <remote> master:dev`

Hope this helps out someone if they are having the same issue.

edited Aug 12 '15 at 7:49   answered Jun 23 '14 at 2:21

delos
1,783   3   12   24

You can try this: `git pull origin master --rebase`

7

answered Jul 20 '19 at 3:14

Eduardo Ramos
71 1 1

4 Hi Eduardo! This worked for me. But can you explain why it works? What does this command do exactly? – Akshaya Natarajan Jun 11 '20 at 18:24

You need to input:

6

```
$ git pull
$ git fetch
$ git merge
```

If you use a `git push origin master --force`, you will have a big problem.

edited Apr 19 '18 at 9:45   answered May 22 '16 at 14:10

Melebius   gaoyehua
4,467 3 29 42   **77** 1 1

6 Why do you need to use `git fetch` and `git merge` again manually after running `git pull` which contains them? – Melebius Apr 19 '18 at 9:58

I have done below steps. finally it's working fine.

5

Steps

1) git init

2) git status (for checking status)

3) git add . (add all the change file (.))

4) git commit -m "`<pass your comment>`"

5) git remote add origin "`<pass your project clone url>`"

6) git pull --allow-unrelated-histories "`<pass your project clone url>`" master

7) git push -u "`<pass your project clone url>`" master

answered Jan 14 '20 at 8:00

Prabhat
657   5   16

Well actually github is much simpler than we think and absolutely it happens whenever we try to **push** even after we explicitly inserted some files in our git repository so, in order to fix the issue simply try..

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: git pull

and then..

: git push

Note: if you accidently stuck in vim editor after pulling your repository than don't worry just close vim editor and try push :)

edited Dec 17 '18 at 5:19   answered Jun 22 '18 at 12:47

d337
366   3   16

✕

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I had this error and it was because there was an update on the server but SourceTree was not showing any updates available (possibly because I was offline when it last checked). So I did a refresh in source tree and now it shows 2 items to push instead of 1 item.

So be sure to press *refresh* or *pull* if you get this error and then try again.

edited Aug 10 '14 at 22:25   answered Aug 10 '14 at 20:27

1.21 gigawatts
12.4k 22 83 179

2

git pull --rebase origin master

git push origin master

git push -f origin master

Warning git push -f origin master

- forcefully pushes on existing repository and also delete previous repositories so if you don`t need previous versions than this might be helpful

answered Mar 13 '20 at 6:53

Bhavesh Chand
31 1 3

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This is how I solved this issue:

1. `git pull origin master`

2. `git push origin master`

This usually happens when your remote branch is not updated. And after this if you get an error like "Please enter a commit message" Refer to this (For me xiaohu Wang answer worked :))

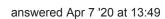answered Jul 17 '20 at 4:52

SalomiEdward
111 4

The error possibly comes because of the different structure of the code that you are committing and that present on GitHub. You may refer to: How to deal with "refusing to merge unrelated histories" error:

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```
$ git pull --allow-unrelated-histories
$ git push -f origin master
```

answered Apr 7 '20 at 13:49

Kourosh Neyestani
631   2   7   15

Even if this surely will work, would you mind explaining it? Could there possibly be any danger in doing this? If yes, explain that even further, like: "Folks, be sure that you will loose commits using this"
– Nico Haase Oct 5 '20 at 15:34

The best option for me and it works and simple

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```
git pull --rebase
```

then

```
git push
```

best of luck

answered Apr 14 '20 at 18:37

Omar Abusabha
57   6

you can use

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```
git pull --rebase <your_reponame> <your_branch>
```

this will help incase you have some changes not yet registered on your local repo. especially

```
README.md
```

edited Jul 14 '20 at 22:19   answered Jul 14 '20 at 20:37

minglyu   braspy
2,409   2   7   24   **15**   6

-1

I had the same problem. It happened that I have created .Readme file on the repository without pulling it first.

You may want to delete .Readme file or pull it before pushing.

answered Mar 11 '20 at 19:42

Martin Oputa
1   1

I'm not sure this answer to a 5year old question provides any additional value, plus It does not provide a solution to the specific problem of the OP. Since you're a new contributor, please take a look at a guide on how to answer questions: stackoverflow.com/help/how-to-answer – Sotiris Koukios-Panopoulos Mar 11 '20 at 20:14

Please explain further why adding a readme file should lead to the given error message – Nico Haase Oct 5 '20 at 15:34

🔥 **Highly active question**. Earn 10 reputation in order to answer this question. The reputation requirement helps protect this question from spam and non-answer activity.

     1/5/21, 2:00 AM