**Branching Development Model**

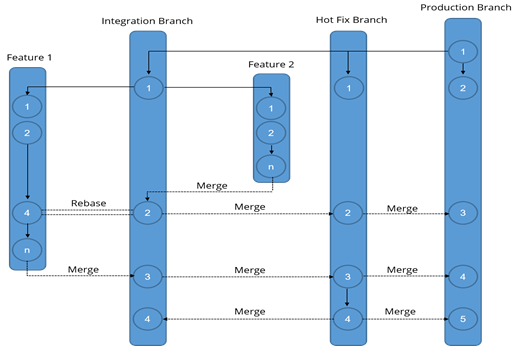
DESCRIPTION

Create a branching model to help your team understand the Git Feature Branch Workflow for faster and efficient integration of work

**Background of the problem statement:**

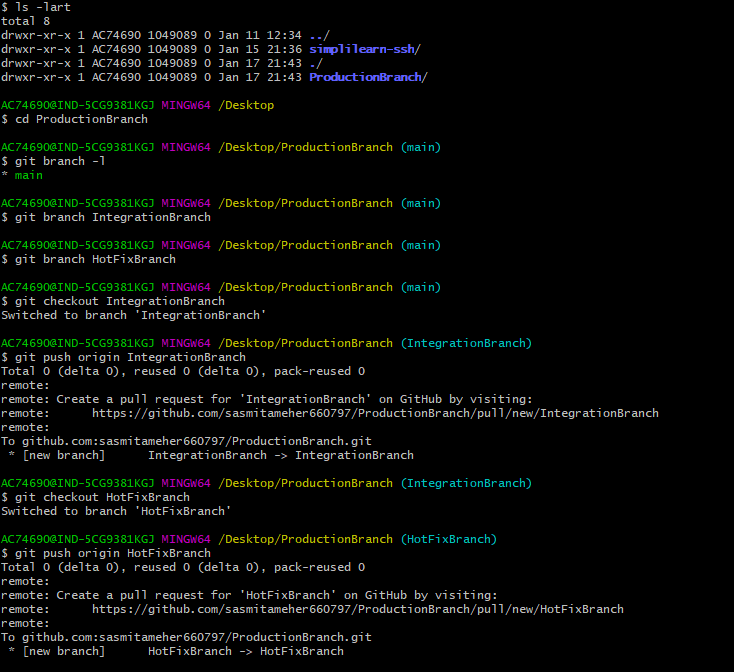
M-theta Technology Solutions hired you as a DevOps Architect. It is undergoing an infrastructural change to implement DevOps to develop and deliver the products. Since M-theta is an Agile organization, they follow the Scrum methodology to develop the projects incrementally. Hence, the company wants to adopt Git as a Source Code Management (SCM) tool for faster integration of work and smooth transition into DevOps.

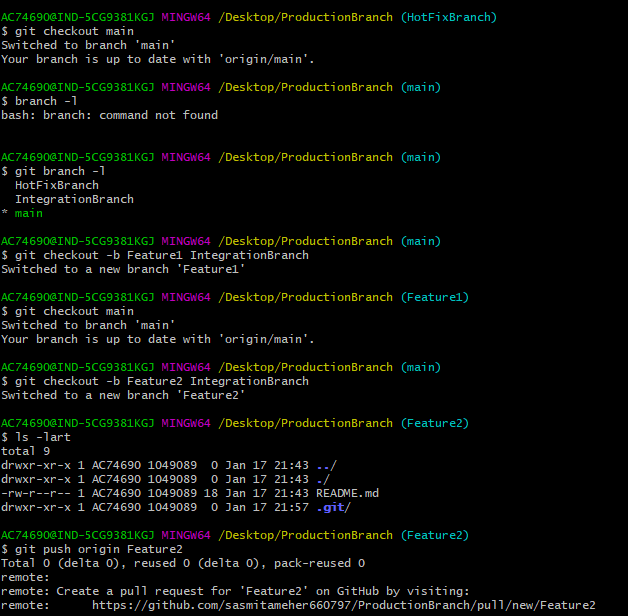
So, as a DevOps Architect, you have been asked to build a branching model to demonstrate the Git Feature Branch Workflow for the company’s engineering team. In the branching model, you are required to create a Production branch which will act as the main (master) branch, an Integration branch which will again have two branches inside it namely Feature 1 and Feature 2, and a Hotfix branch which will be used for fixing any issues that could come up from Integration or Production branches.

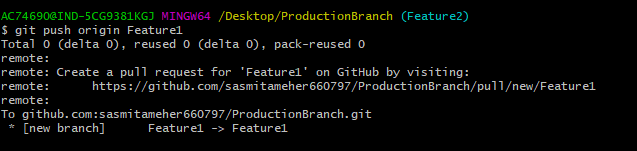


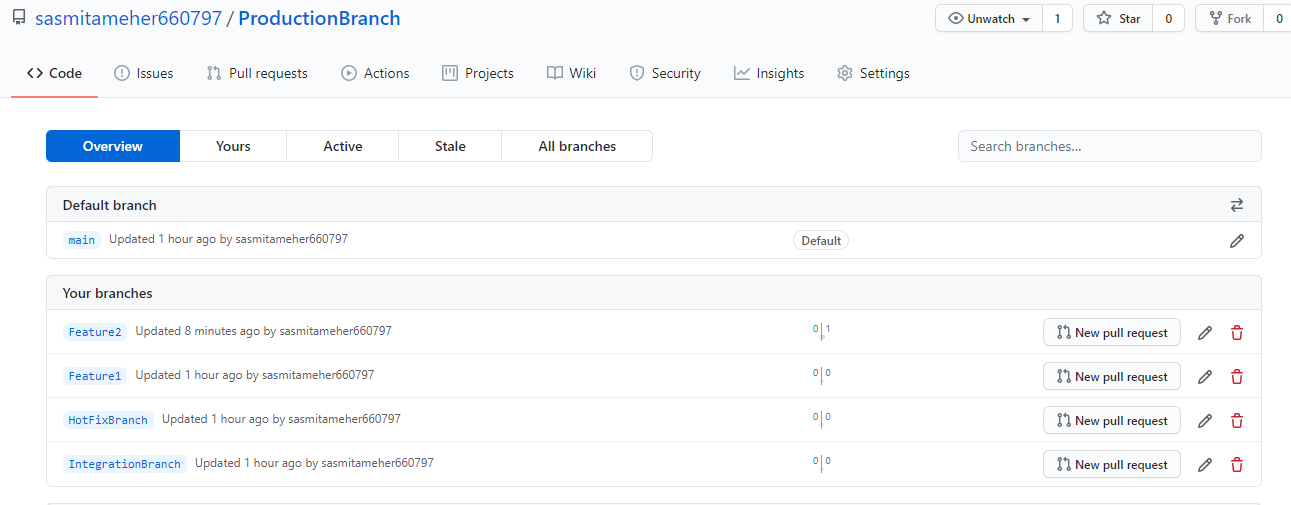
**Steps :**

1. Start with the Production branch (master branch), and then create a HotFix  and Integration branch
2. Subsequently, create Feature 1 and 2 branches that integrate to the Integration branch as shown in the above figure.

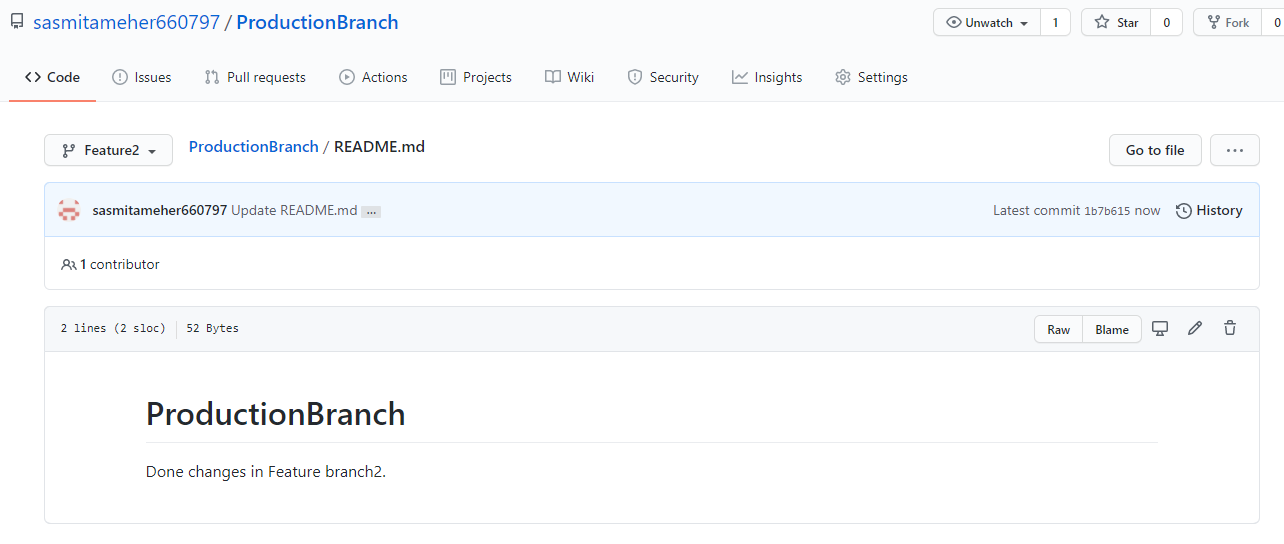


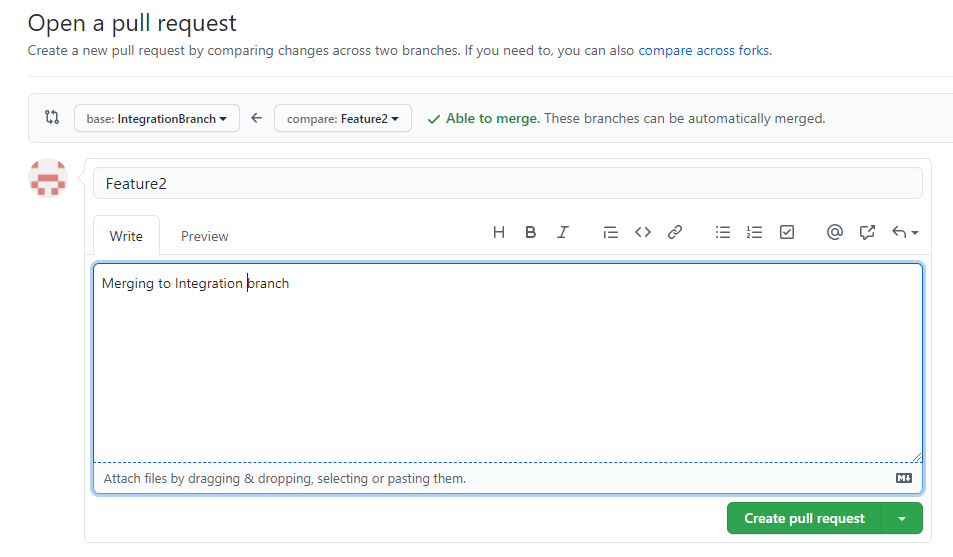


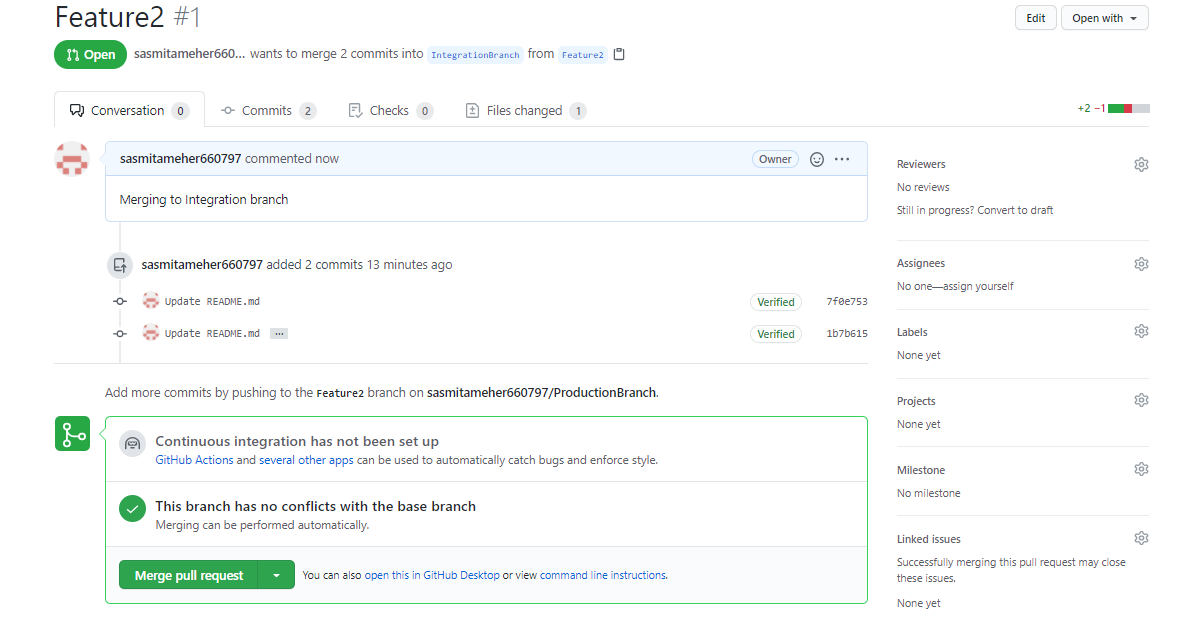


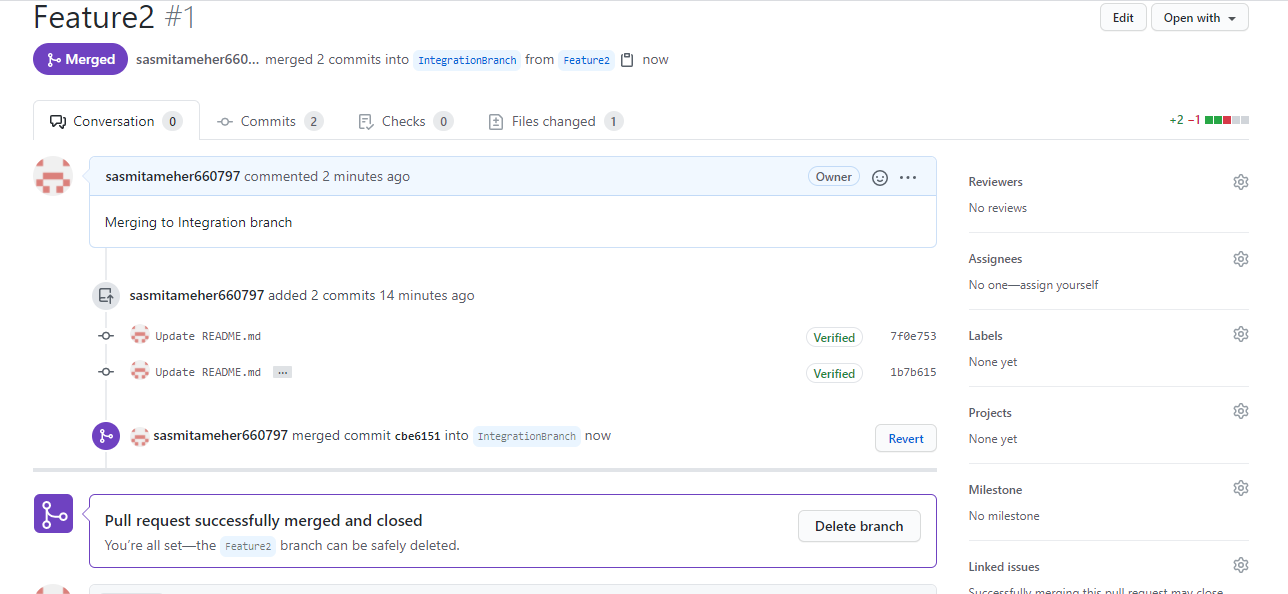


1. Commit some changes in the Feature 2 branch and merge it into the Integration branch. Delete this branch once merging is complete .

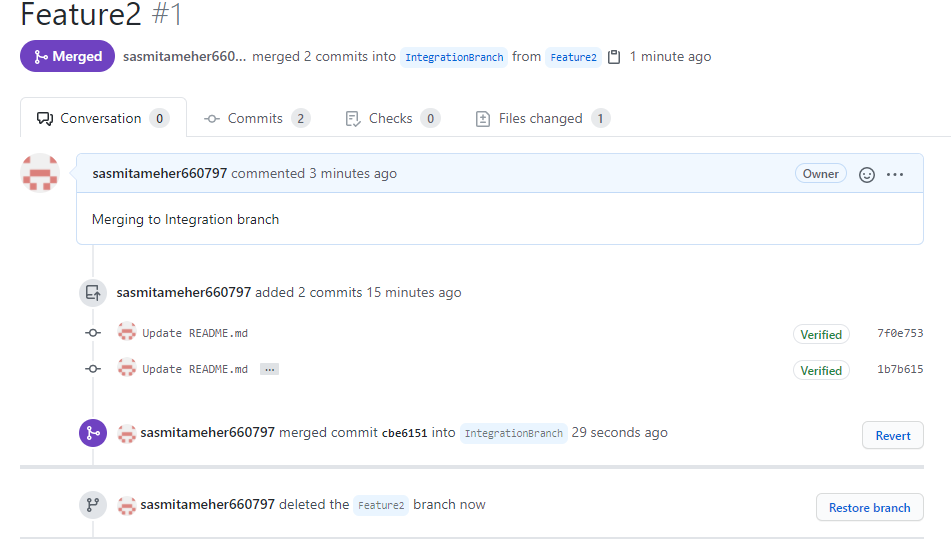


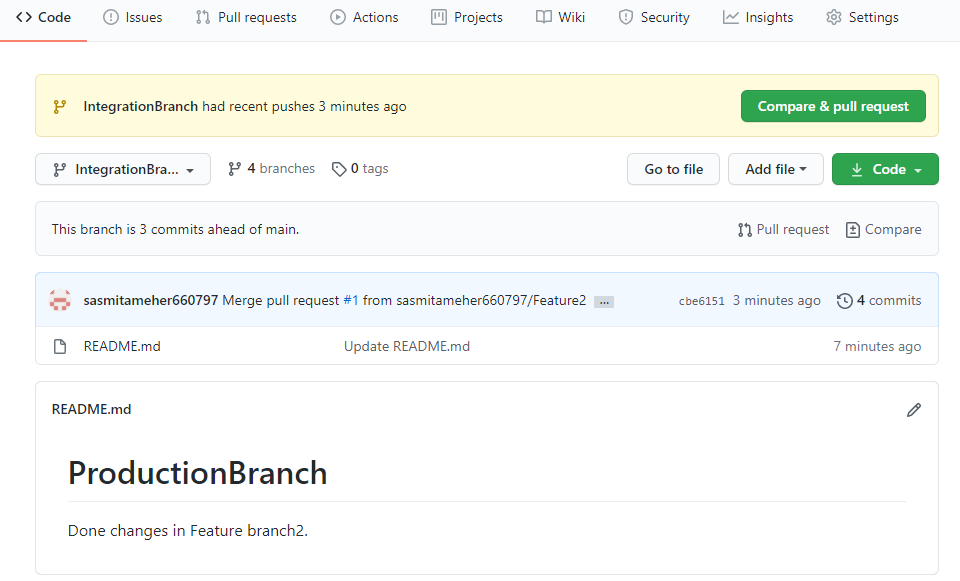




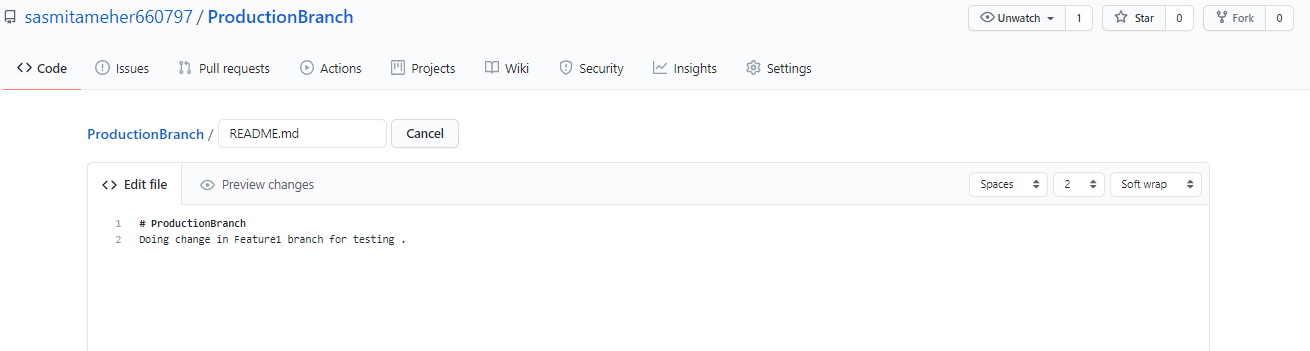


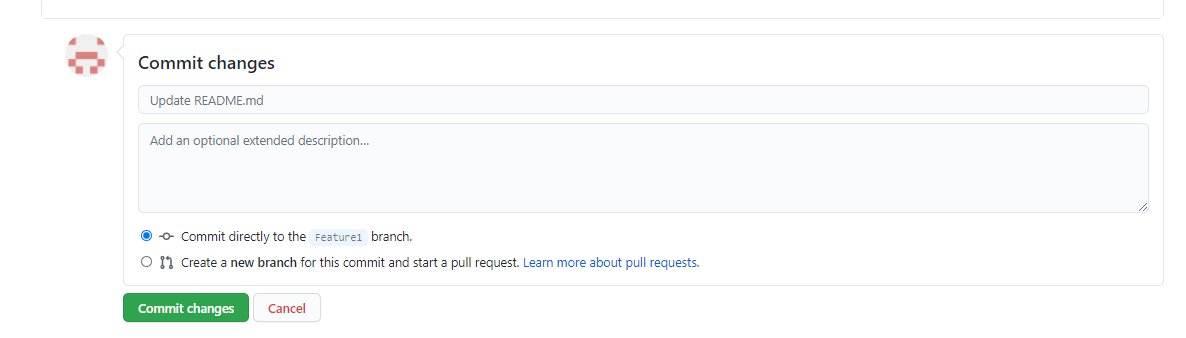
Deleting Feature2 branch after merging .

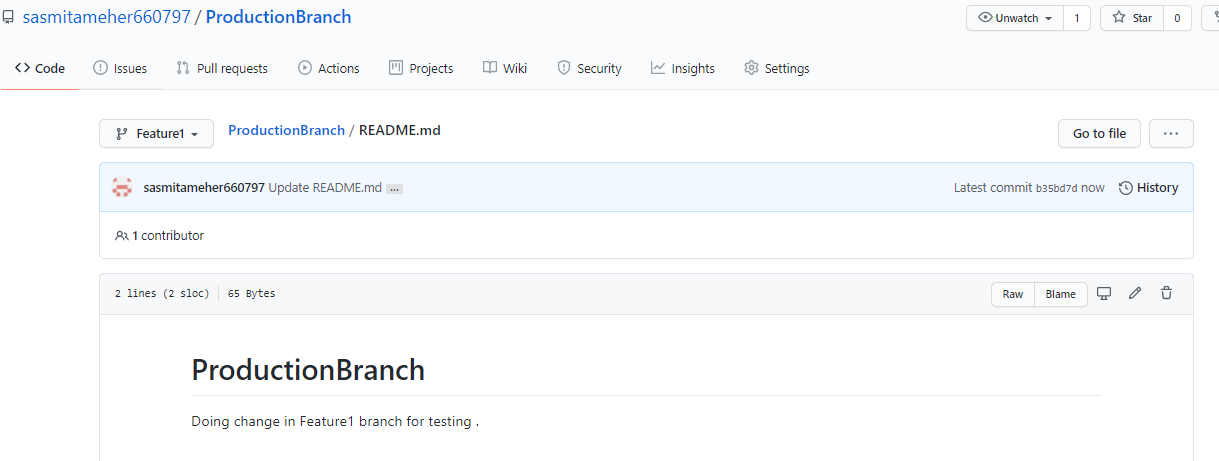


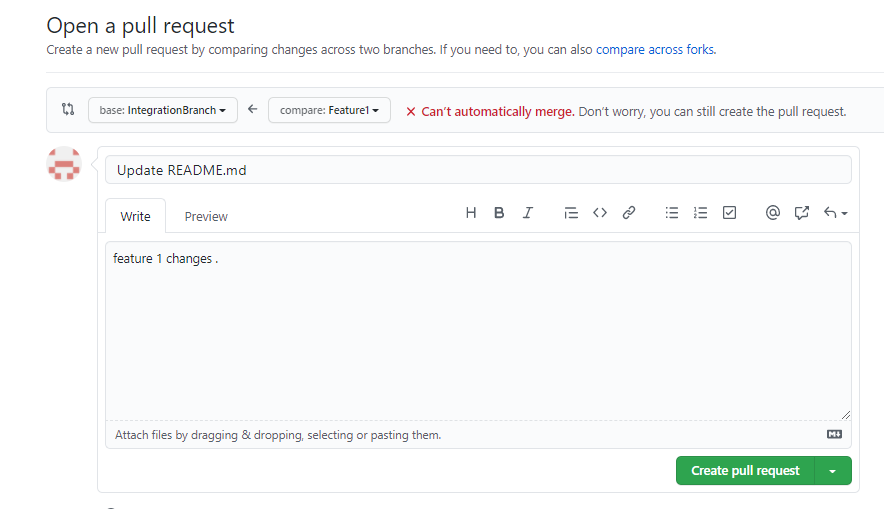


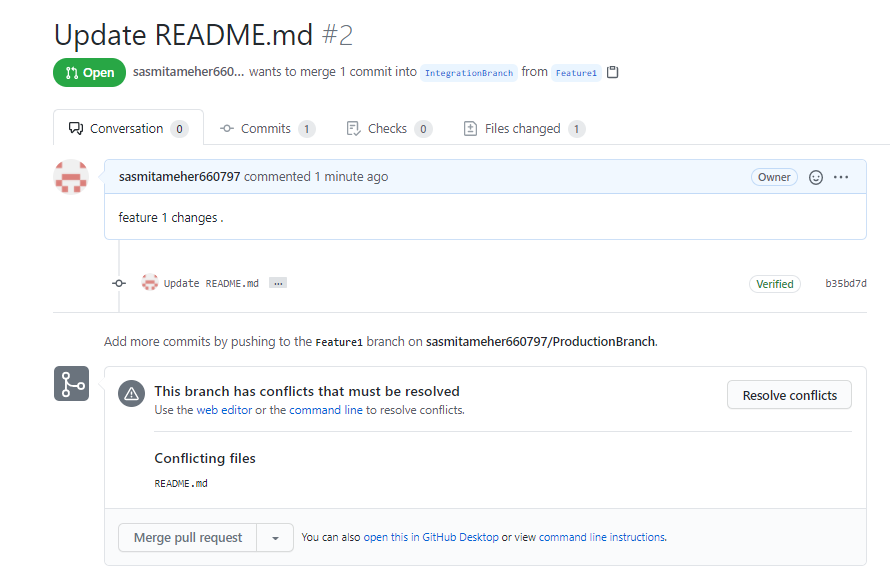
1. Commit some changes in the Feature 1 branch and rebase it to the Integration branch .

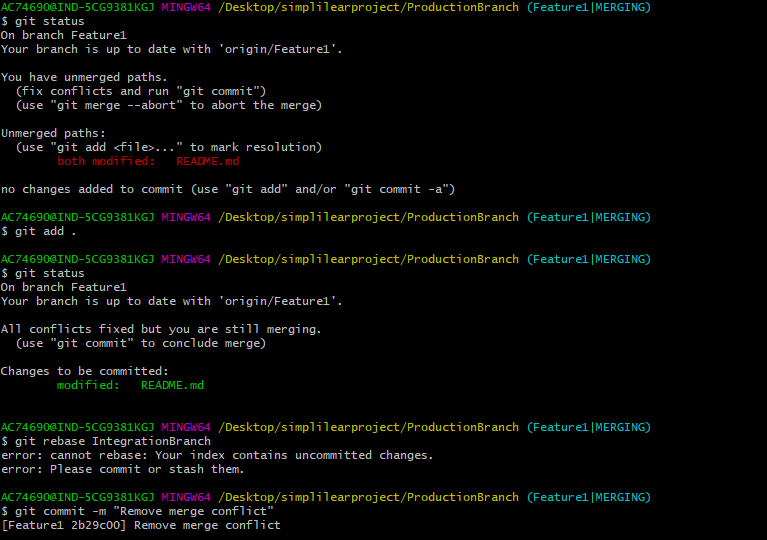


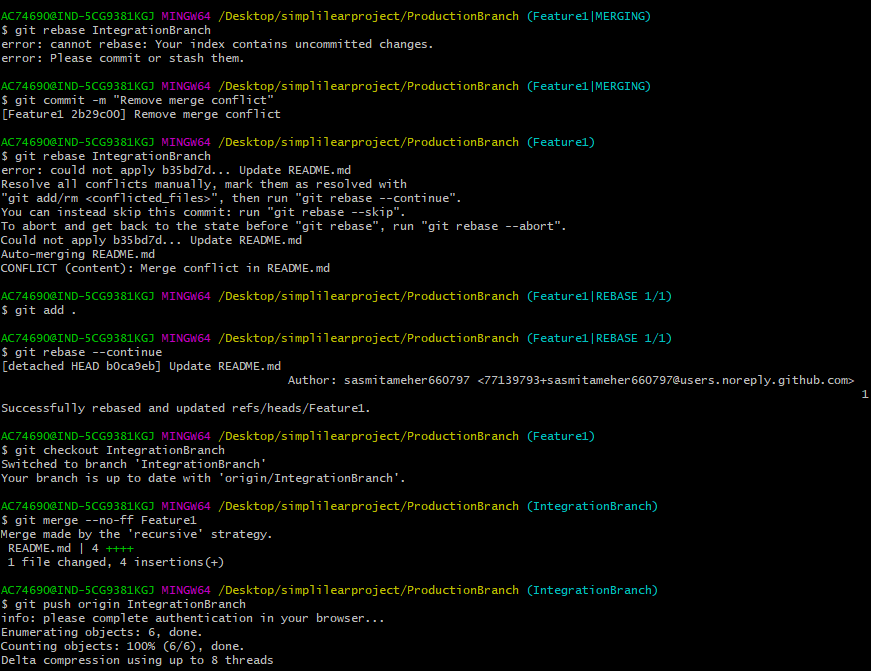


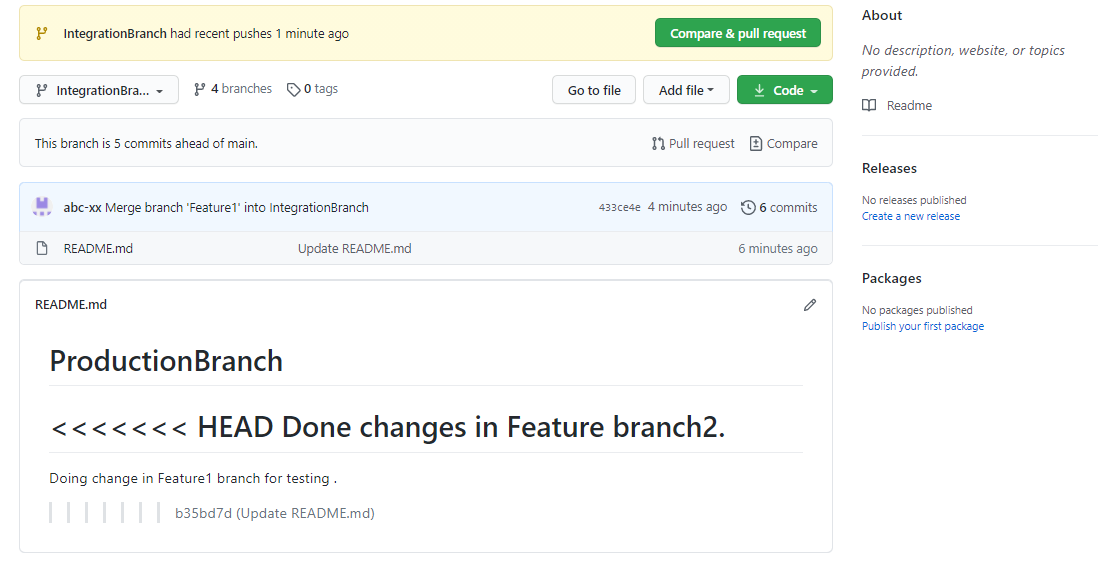






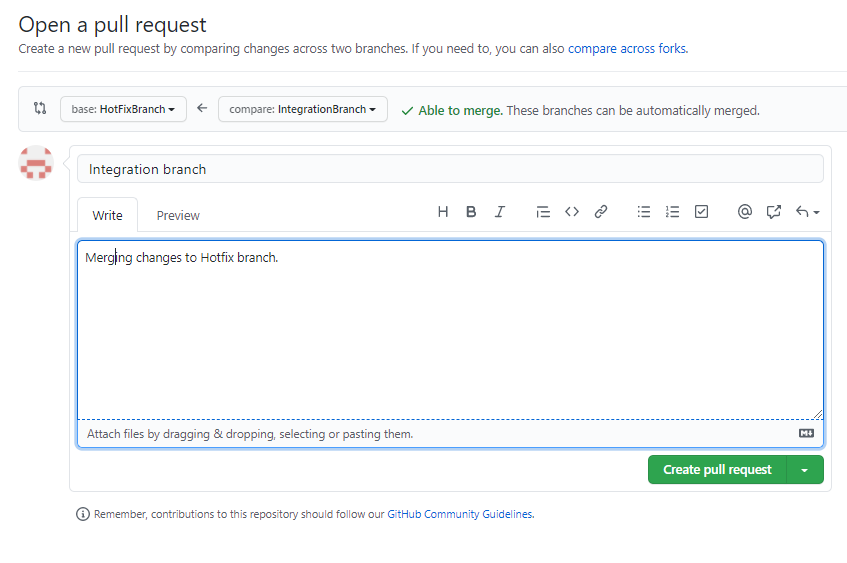


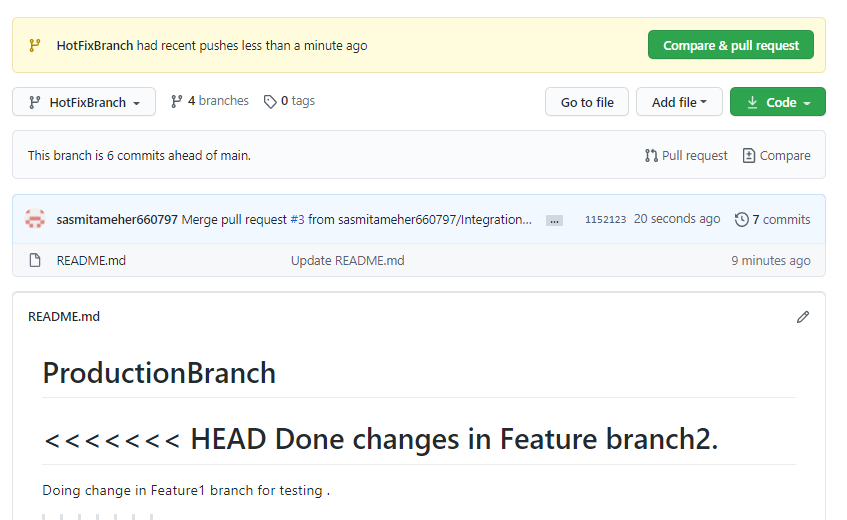
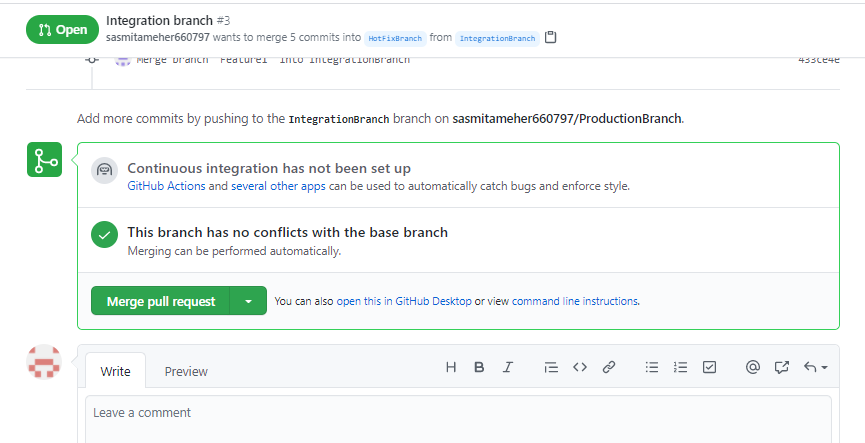




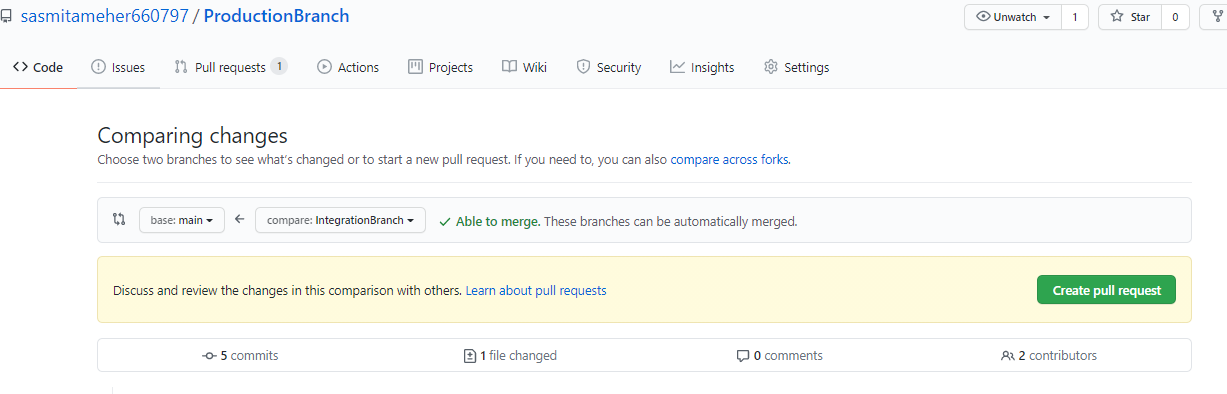
1. Merge the Integration branch into Hotfix and Production branch to update these branches.

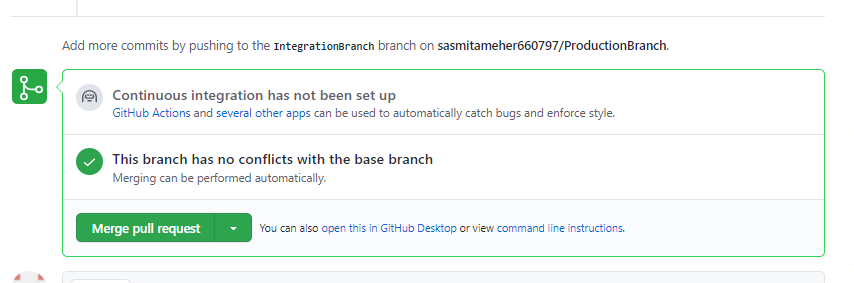
Merging Hotfixbranch

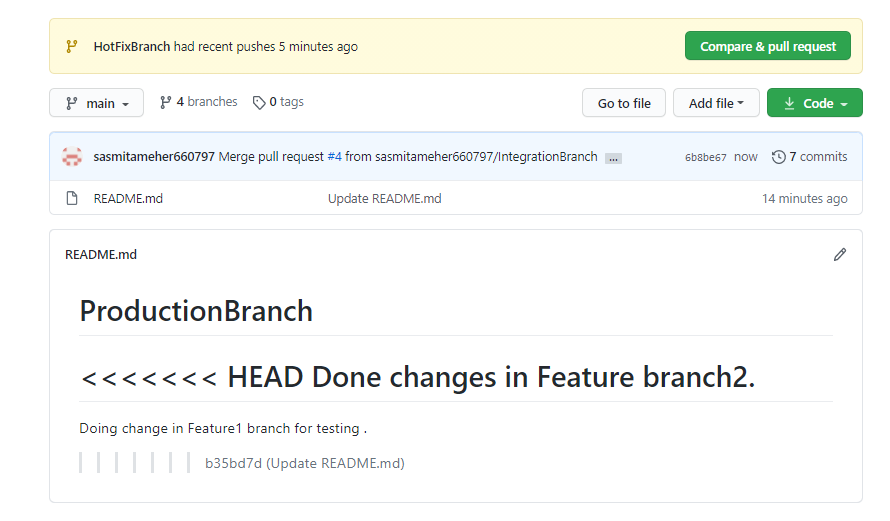




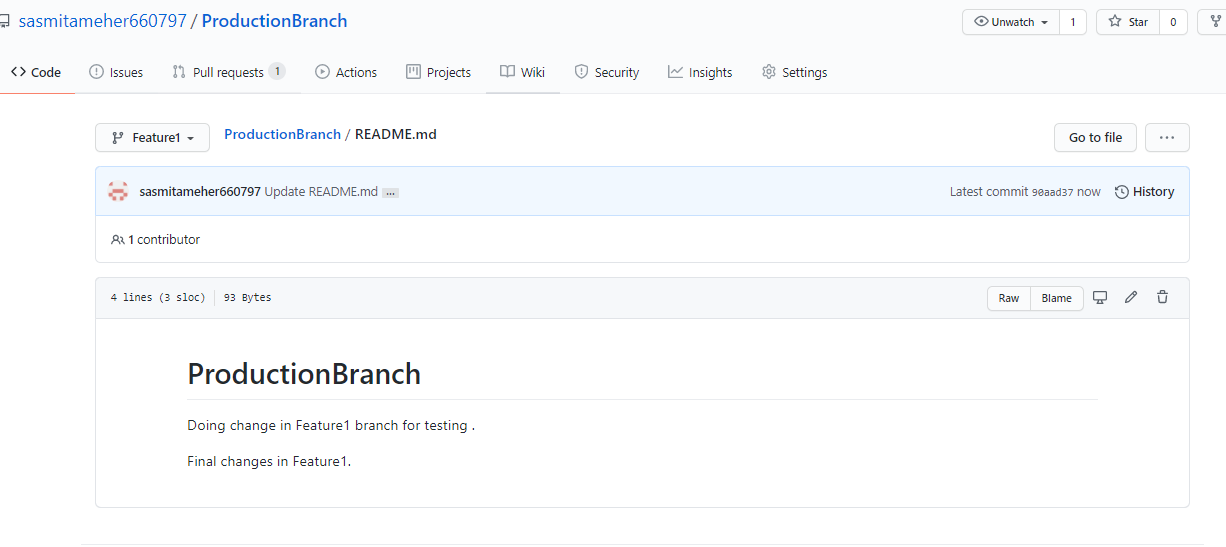
Merging Production branch

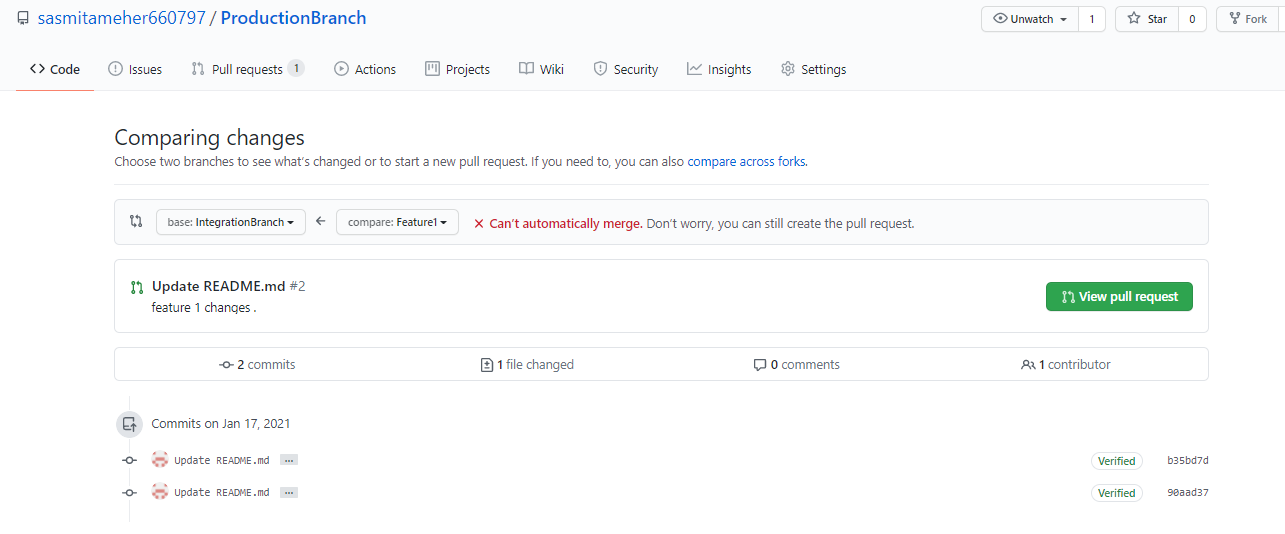


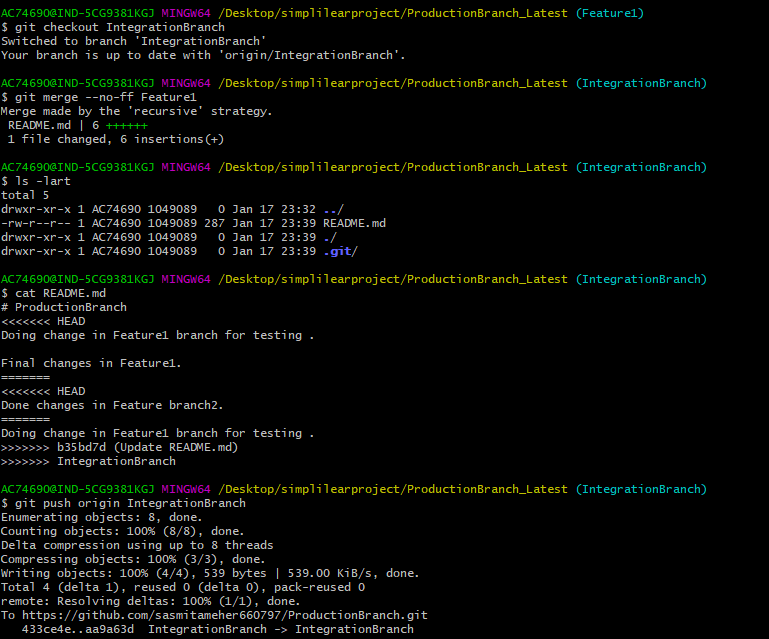


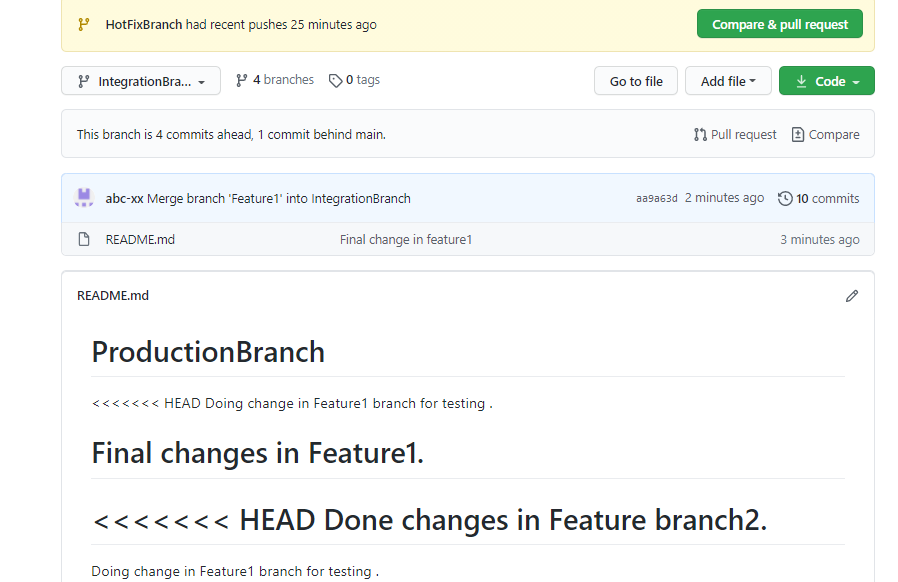


1. Commit some changes in Feature 1 branch, and then merge it into Integration, Hotfix, and Production branch. Delete this branch once merging is complete.

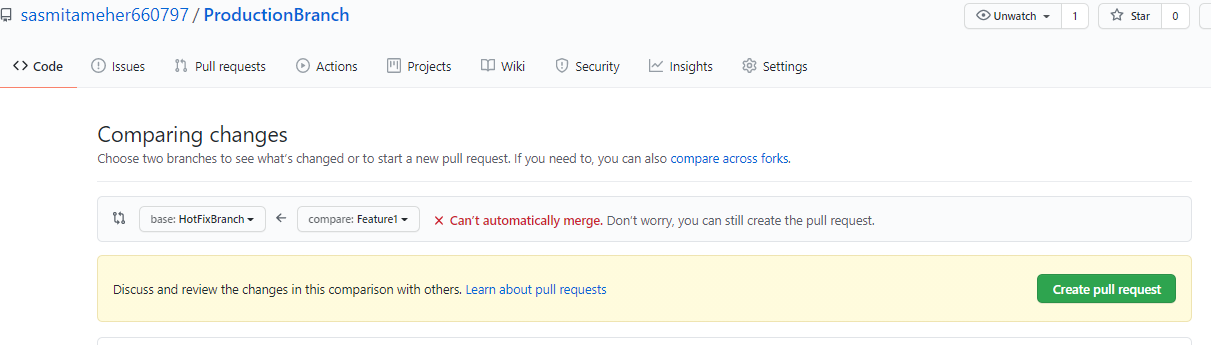


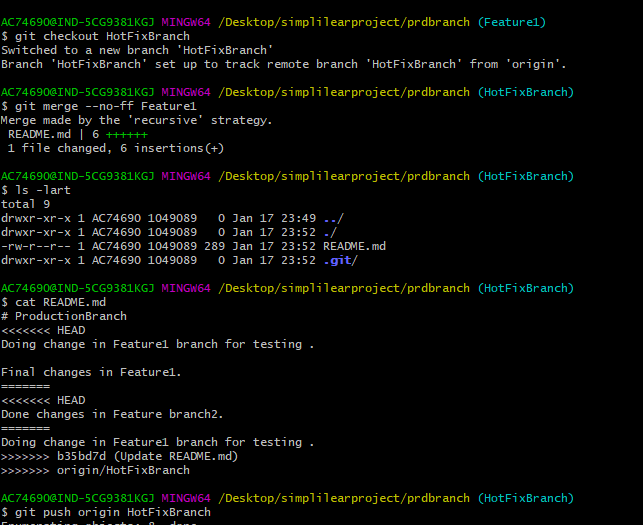


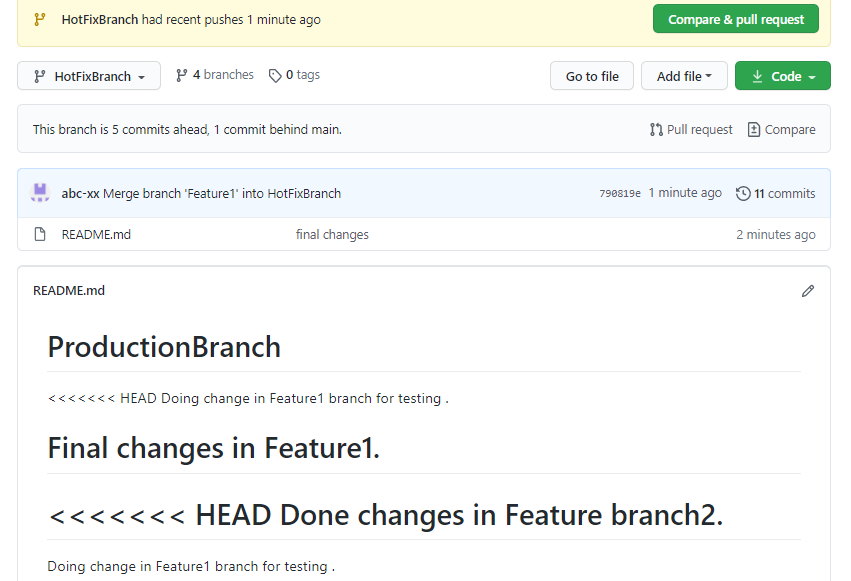




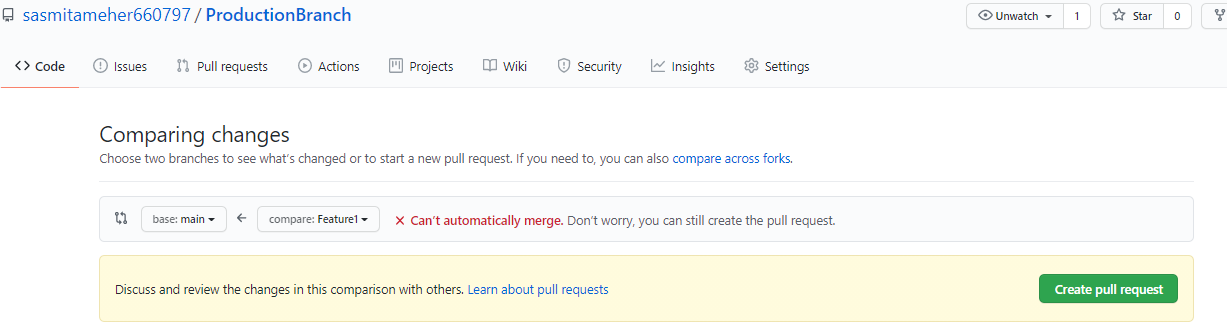
Feature1 🡪 HotFixBranch Merging

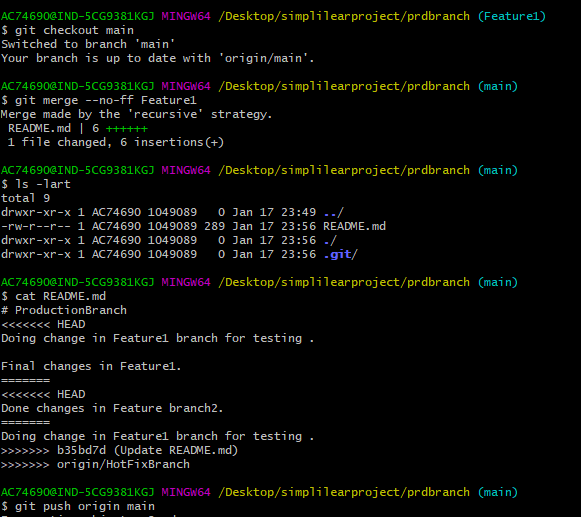


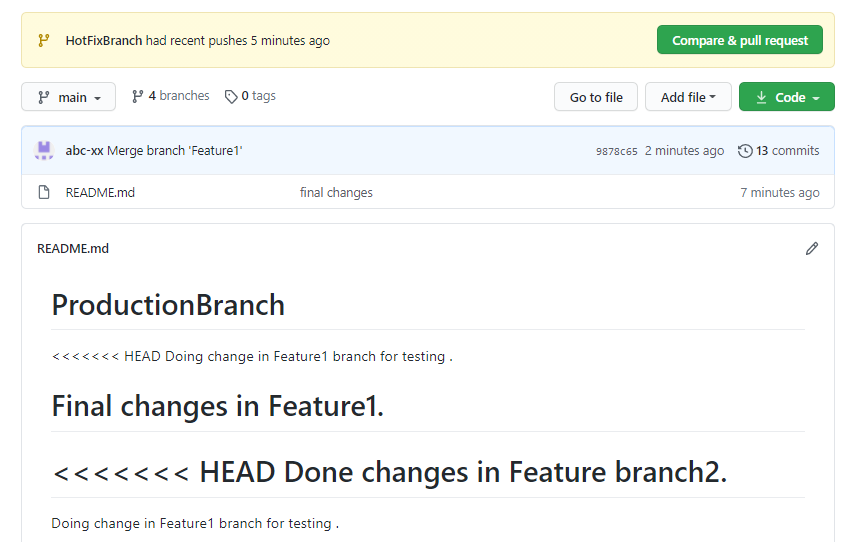




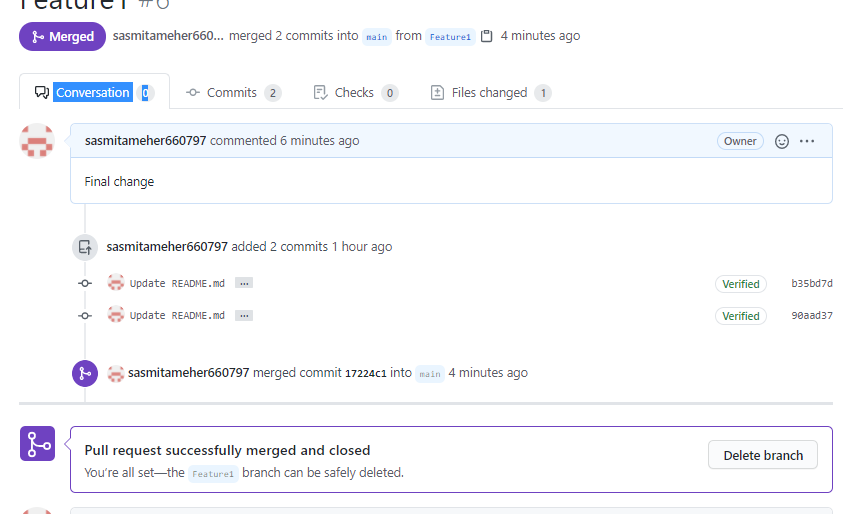
Feature1 🡪 ProductionBranch Merging

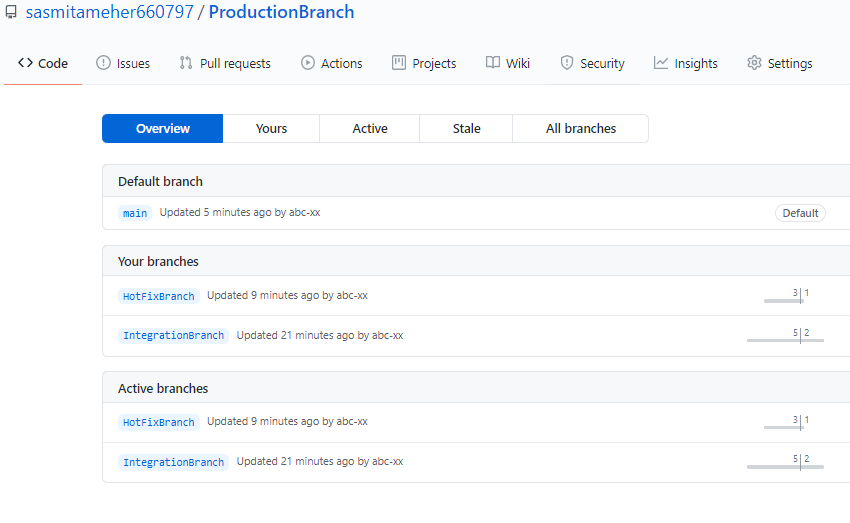




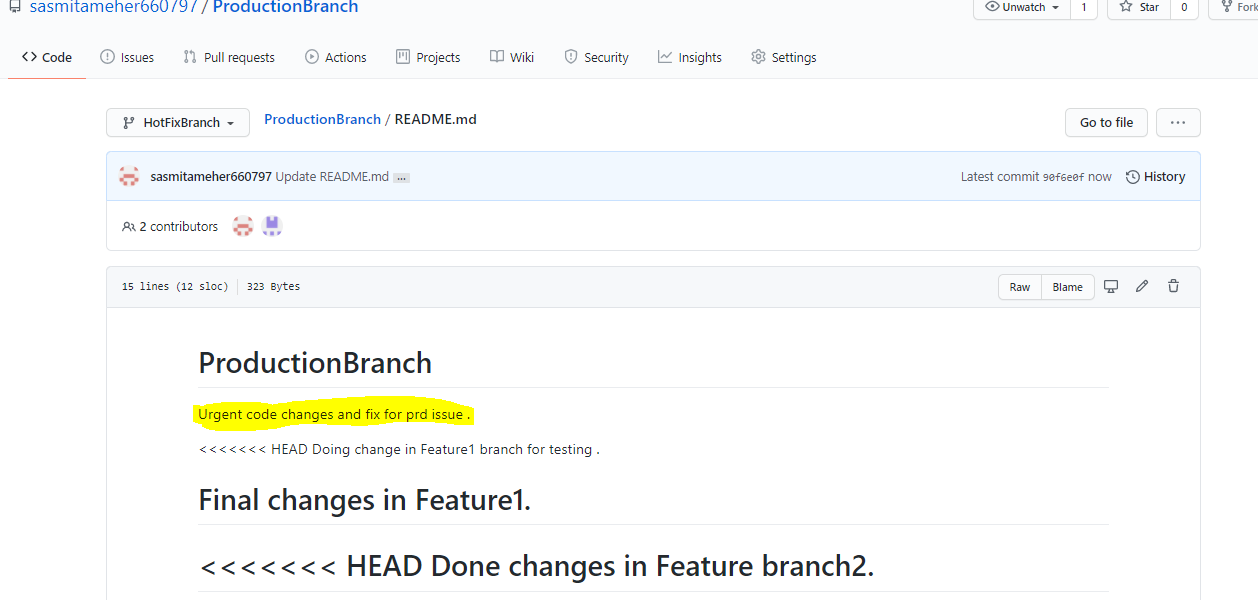


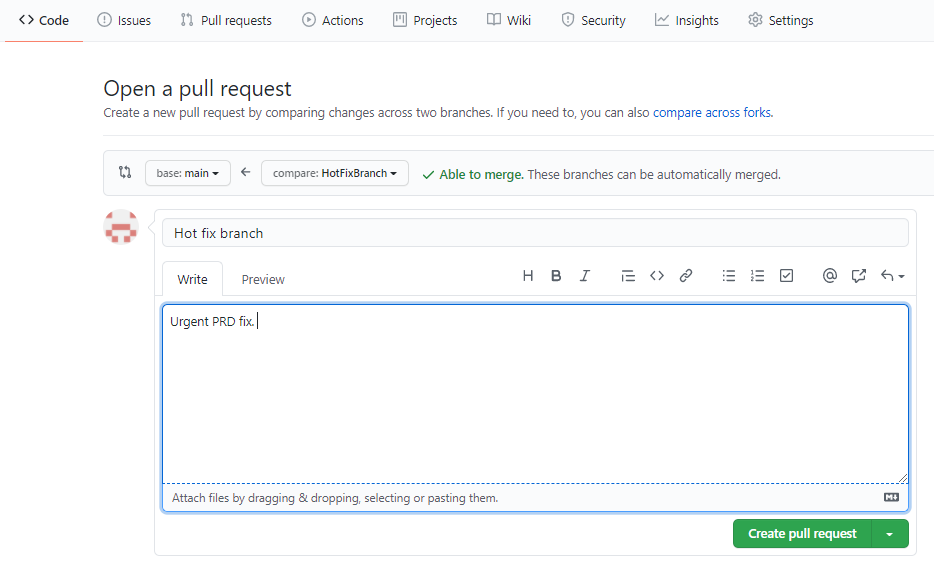
Deleting Feature1 branch .

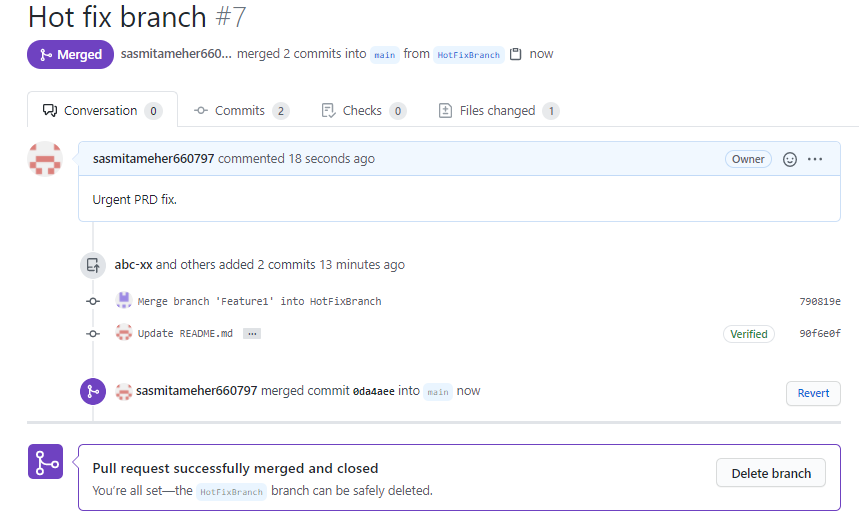


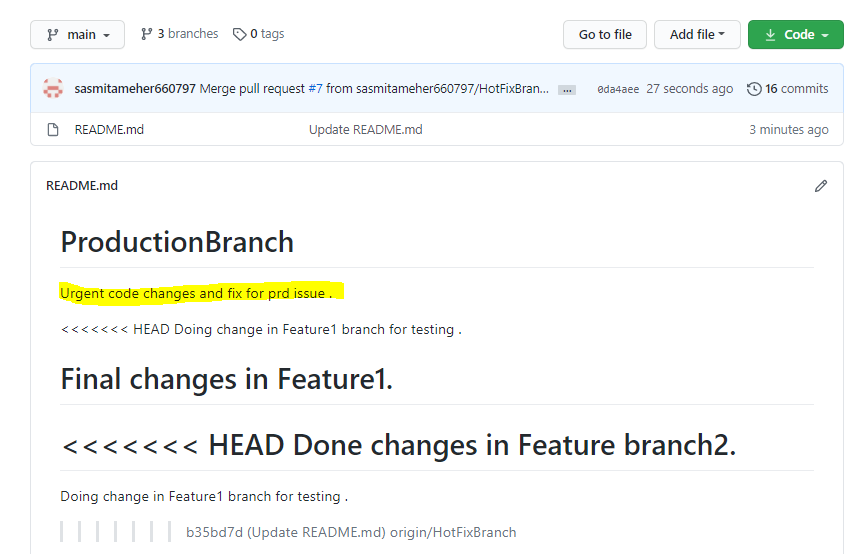


1. Commit some changes in the Hotfix branch and merge it into the Production as well as the Integration branch.









HotFixBranch 🡪 IntegrationBranch Merging

