**Q1)** What happens when we have 2 commits and we try to push? Discuss in detail.

**A:**

When you have two commits and try to push:

1. If the remote has no new changes:  
   Your two local commits are pushed to the remote without any issues.
2. If the remote has new commits:  
   Git will reject your push because the remote contains changes that you don't have locally.
   * To fix this, you'll need to run git pull to fetch the remote changes and merge them with your local commits.
   * After merging (or resolving conflicts), you can push your changes.
3. Force Push (not recommended):  
   You can use git push --force to overwrite the remote, but this is risky as it can erase others' work.

**Q2)** Find out why there are no **++** and **--** operators in Python.

**A:**

Python doesn't have **++** and **--** operators to keep the language simple and readable. Instead, it uses **+= 1** and **-= 1** for incrementing and decrementing, which are clearer and avoid potential bugs.

**Q3)** Find out why there are no **++** and **--** operators in Python.

**A:**

Floating-point numbers are stored in memory using the **IEEE 754** standard, which splits them into three parts:

1. **Sign bit**: Indicates if the number is positive or negative.
2. **Exponent**: Determines the range or scale of the number.
3. **Mantissa**: Holds the actual value (precision).

For example, in a 32-bit float:

* 1 bit for the sign
* 8 bits for the exponent
* 23 bits for the mantissa