**GitLet Architecture**

**Functionalities**

* *Commit*, saving the content of entire directories of files.
* *Checking out*, restoring the version of a specific commit.
* *Log*, viewing the history of your backups.
* *Branches,* maintaining parallel sequences of commits.
* *Merge,* combining branches together.

A picture containing drawing

Description automatically generated

* We are able to change where the head is pointed at.
* At the head GitLet is also able to branch out into different paths.
* **Commit trees are immutable.**

**Structures**

* *Blobs:* the content of files. Basically, just a file object.
* *Trees:* Directory mapping, a tree representing the structure of a git repository.
* *Commits:* combinations of log messages, other metadata (time stamp, commit message, map of filenames to blob objects, primary and secondary commit reference for normal commits and merges respectively), a reference to a tree, and references to parent commits. (kind of like a repository?)
  + Commits and blobs have distinct SHA-1 hash values.