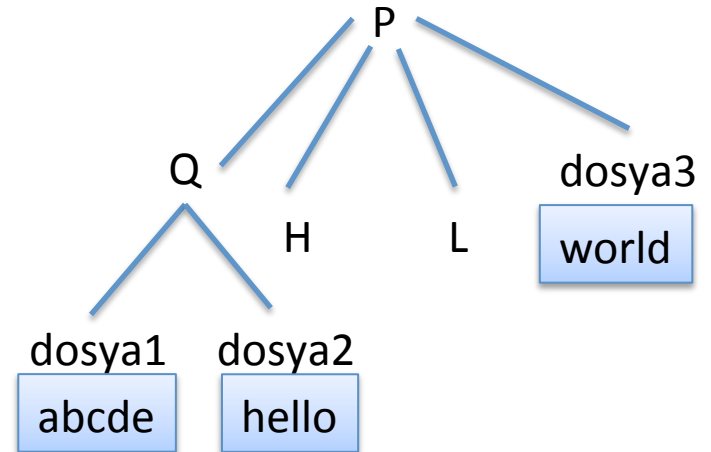
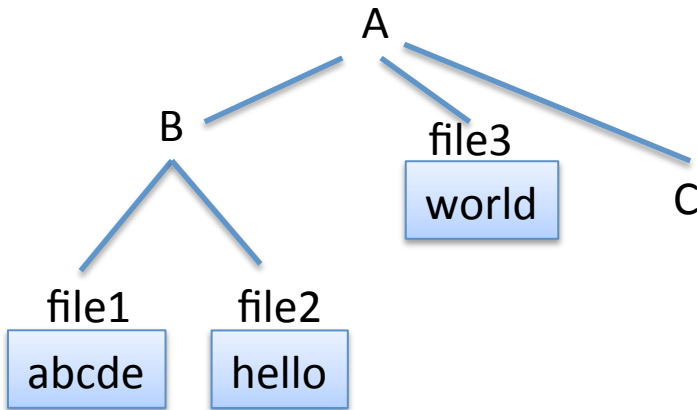


# Example

## Illustration of the Algorithm for HW2



A,B,C,P,Q,H,L are directories.  
C,H,L are empty directories.

# Hash Calculations

Hash of file1: 36bbe50ed96841d10443bcb670d6554f0a34b761be67ec9c4a8ad2c0c44ca42c

Hash of file2: 2cf24dba5fb0a30e26e83b2ac5b9e29e1b161e5c1fa7425e73043362938b9824

Hash of directory B: hash of concatenation of sorted hashes of contents of B:

Hash(2cf24dba5fb0a30e26e83b2ac5b9e29e1b161e5c1fa7425e73043362938b982436bbe50ed96841d10443bcb670d6554f0a34b761be67ec9c4a8ad2c0c44ca42c) = fbe1ab95463ff75095062b5b57e1ceeb727817e6c6699534f23b6406aa849c00

Hash of file3: 486ea46224d1bb4fb680f34f7c9ad96a8f24ec88be73ea8e5a6c65260e9cb8a7

Hash of empty directory(C) : e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855

Hash of directory A: hash of concatenation of sorted hashes of contents of A:

Hash(486ea46224d1bb4fb680f34f7c9ad96a8f24ec88be73ea8e5a6c65260e9cb8a7e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855fbe1ab95463ff75095062b5b57e1ceeb727817e6c6699534f23b6406aa849c00) = 5909a18574b7e5ee11e99cc2025da45509640c29da2468f3eb0c03a977b2ae00

Hash of dosya1: 36bbe50ed96841d10443bcb670d6554f0a34b761be67ec9c4a8ad2c0c44ca42c

Hash of dosya2: 2cf24dba5fb0a30e26e83b2ac5b9e29e1b161e5c1fa7425e73043362938b9824

Hash of directory Q: hash of concatenation of sorted hashes of contents of Q:

Hash(2cf24dba5fb0a30e26e83b2ac5b9e29e1b161e5c1fa7425e73043362938b982436bbe50ed96841d10443bcb670d6554f0a34b761be67ec9c4a8ad2c0c44ca42c) = fbe1ab95463ff75095062b5b57e1ceeb727817e6c6699534f23b6406aa849c00

Hash of empty directory(H) : e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855

Hash of empty directory(L) : e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855

Hash of dosya3: 486ea46224d1bb4fb680f34f7c9ad96a8f24ec88be73ea8e5a6c65260e9cb8a7

Hash of directory P: hash of concatenation of sorted hashes of contents of P:

Hash(486ea46224d1bb4fb680f34f7c9ad96a8f24ec88be73ea8e5a6c65260e9cb8a7e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855fbe1ab95463ff75095062b5b57e1ceeb727817e6c6699534f23b6406aa849c00) = d1ec5afd435e2e35ccb37eaebe384e60f429e55135fbc80a1e8cfd3be848e22c

# Duplicates Files and Directories

A/B/file1   P/Q/dosya1

A/B/file2   P/Q/dosya2

A/file3   P/dosya3

A/B   P/Q