How to run
Just run make all command in the directory Assignment1/1.2 and ignore the warnings.

All the internal commands can be implemented without the fork option , description of fork and wait is provided in the previous assignment.
The execv() command takes the address of child and the command array as input and runs the separate .c file

Internal commands
1. echo :
   Options : 1. -n : do not output the trailing newline
             2. -e : enable interpretation of backslash escapes

   Errors and corner cases
      1. For the default command without the inverted commas \ is not printed

         Input: echo "hello \n world"
         Output: hello \n world

         Input: echo hello \n world
         Output: hello n world

      2. Cases handled for -e \n , \\ ,\t , \b
      3. Prints new line when only echo w/o arguments is called
      4. All inverted quotes are eliminated

2. cd:
   Options : 1. ~ : do not output the trailing newline
             2. .. : redirect to previous

   Errors and corner cases
      1. Only cd without arguments redirects to the home directory.
      2. Error reporting if directory doesn't exist
      3. More than 1 directory provided
3. history:
   Options : 1. -c : to clear all history
             2. -d : to delete a history with offset

   Errors and corner cases

1. When provided with number as option , prints only those many entries from the bottom
2. If in option -d offset is greater than the number of history it throws an error
3. Error if more than 3 inputs are given

4. pwd :

Options : 1. -L : Use pwd from environment even if it contains symlinks
2. -P : avoid all symlinks

Errors and corner cases

1. The function getcwd() and getenv() handle all the errors in c and return null if there are any errors

5. exit :

Options: No options as it is a system call.

External commands

1. ls:

Options : 1. -1 : prints all entries in new line
2. -a : shows all hidden files and . , .. files

Errors and corner cases

1. Alpha sorting is done
2. Works with an absolute path
3. ls works when a directory is provided as argument
4. Multiple arguments (1 option and directory as argument is allowed)

2. cat:

Options : 1. -n : number all output lines
2. -b : number all non empty lines, overrides -n

Errors and corner cases

1. When cat is called without arguments , it goes into infinite loop and prints whatever is given as input.
2. Multiple files are handled
3. If file 1 ends at line x the next file starts printing from same line without even a space
4. Numbering is handled for the same.
5. Error if file doesn't exist

3. date:

Options : 1. -I : prints in yyyy/mm/dd format
2. -u : displays GMT instead of local time of machine.
3. +%b: abbreviated month name
4. +%a: abbreviated weekday name

Errors and corner cases
1. Error if more than 1 operand provided
2. Error if other than 4 options mention above provided

4. mkdir:
Options : 1. -v : print a message for each created directory
2. -p : no error if existing, make parent directories as needed

Errors and corner cases
1. Report error if already exists
2. Create multiple directories
3. Give error if directory already exists
4. makes directory within another directory if that is not the present working directory
5. Error for missing operands
6. Error if other than above options are provided

5. rm :
Options : 1. -i : prompts for yes or no before deleting
2. -d : number all non empty lines, overrides -n

Errors and corner cases
1. Cannot delete non empty directory
2. Can delete multiple directories at once
3. Error if no argument is passed
4. Error if file not found
Assumption : you do not delete the shell files.