

## Using Pipes for InterProcess Communication

Your task is to write a C program that demonstrates inter-process communication using unnamed pipes between a parent and child process. The program will perform the following tasks:

### 1. Parent Process (P1):

- Accepts a filename as a command-line argument.
- Opens and reads the contents of the specified file.
- Sends the file content to the child process (P2) through a pipe.
- Receives the processed text from the child process (P2) through a second pipe.
- Prints the received text and writes the processed content into a file called `output.txt`.

### 2. Child Process (P2):

- Reads the file content sent by the parent process.
- Processes the content by numbering each line in the format "`line_number. content`" (e.g., `1. First line`, `2. Second line`).
- Sends the processed content back to the parent process via another pipe.

Sample input:

```
Clash Of Clans
Barbarian --> Barbarian King
Archer    --> Archer Queen
Wizard + Healer --> Grand Warden
Goblin, Giant
Wall Breaker, Balloon
Dragon
P.E.K.K.A
Baby Drags, Miners
Electro Drags
```

Output.txt:

```
1. Clash Of Clans
2. Barbarian --> Barbarian King
3. Archer    --> Archer Queen
4. Wizard + Healer --> Grand Warden
5. Goblin, Giant
6. Wall Breaker, Balloon
7. Dragon
```

8. P.E.K.K.A
9. Baby Drags, Miners
10. Electro Drags

Terminal:

```
Compilation terminated.  
● hp@HP:~/Desktop/Pipes/TakeHomeNew$ gcc soln.c  
● hp@HP:~/Desktop/Pipes/TakeHomeNew$ ./a.out input.txt  
P2(8252)(par = 8251) received: Clash Of Clans  
Barbarian --> Barbarian King  
Archer --> Archer Queen  
Wizard + Healer --> Grand Warden  
Goblin, Giant  
Wall Breaker, Balloon  
Dragon  
P.E.K.K.A  
Baby Drags, Miners  
Electro Drags  
  
P1(8251)(par = 8107) received: 1. Clash Of Clans  
2. Barbarian --> Barbarian King  
3. Archer --> Archer Queen  
4. Wizard + Healer --> Grand Warden  
5. Goblin, Giant  
6. Wall Breaker, Balloon  
7. Dragon  
8. P.E.K.K.A  
9. Baby Drags, Miners  
10. Electro Drags  
  
○ hp@HP:~/Desktop/Pipes/TakeHomeNew$ █
```