

```
act :: IO (Char,Char)
act = do x <- getChar
        getChar
        y <- getChar
        getChar
        return (x,y)
```

```
ghci> act
a
b
('a','b')
```

```
getLine' :: IO String
getLine' = do x <- getChar
             if x == '\n' then
                 return []
             else
                 do xs <- getLine'
                    return (x:xs)
```

```
ghci>
ghci> getLine'
abcdefg
"abcdefg"
ghci>
```

```
putStr' :: String -> IO ()
putStr' [] = return ()
putStr' (x:xs) = do putChar x
                    putStr' xs
```

```
ghci>
ghci> putStr' ['a','b','c','d','e']
abcdeghci>
```

```
ghci>
ghci> putStr' ['a','b','c','d','e','\n']
abcde
ghci>
```

```
ghci> putStrLn' ['a','b','c','d','e']  
abcde  
ghci>
```

`putStrLn' :: String -> IO ()`

`putStrLn' xs = do putStrLn xs`


`putChar '\n'`

```
ghci> strlen'  
Enter a string: abcdefg  
The string has 7 characters  
ghci>
```

`strlen' :: IO ()`

```
strlen' = do putStr "Enter a string: "  
             xs <- getLine'  
             putStr "The string has "  
             putStr (show (length xs))  
             putStrLn " characters"
```

```
ghci>
ghci> hangman
Think of a word:
-----
Try to guess it:
? company
comp----
? compound
compu---
? computes
compute-
? computer
You got it!
ghci>
ghci>
```



computer