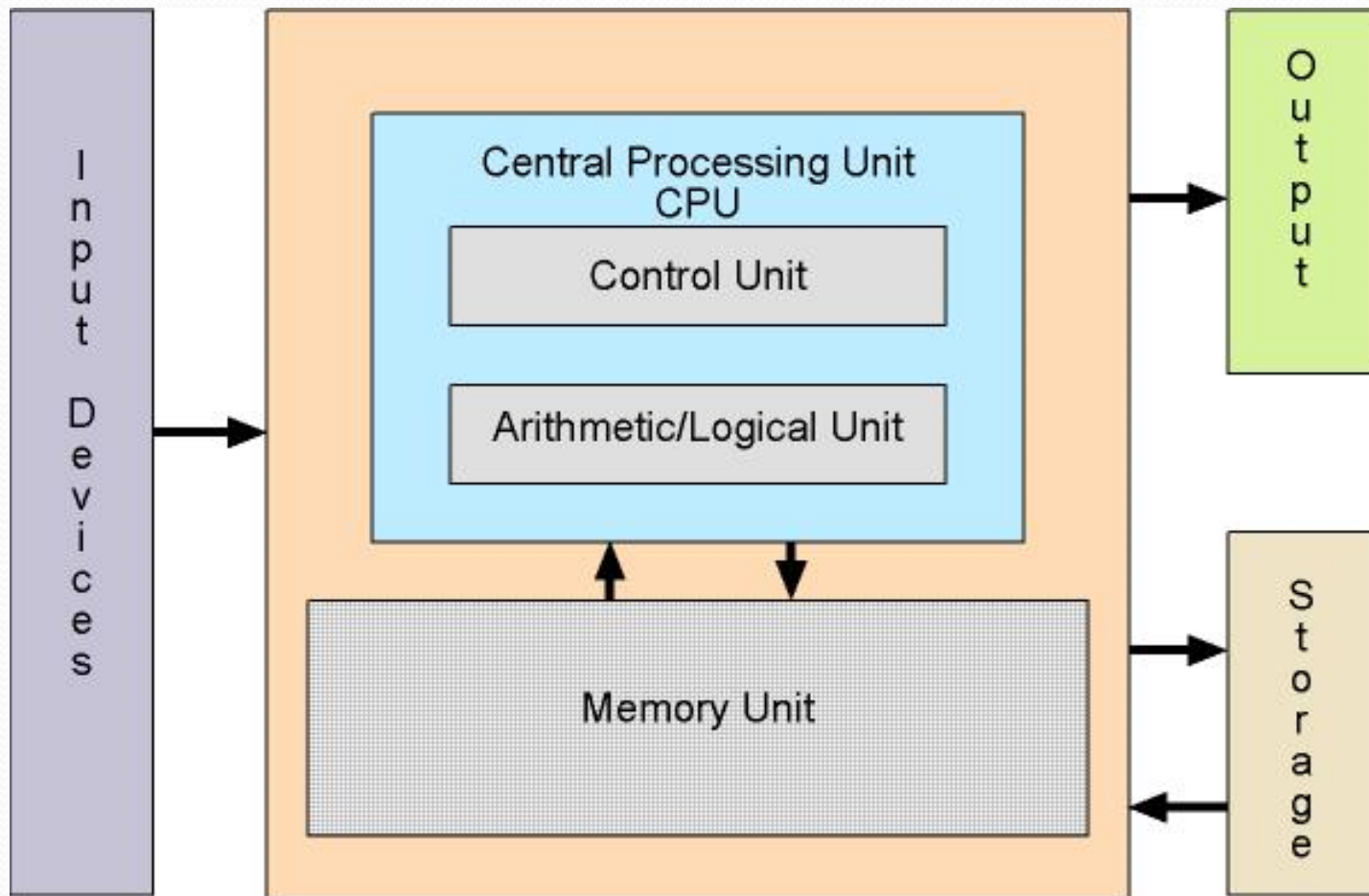


# Introduction to Programming

# Block Diagram of Computer



# What is VI Editor

- “**vi**” is the standard Unix text editing program
- Several versions/clones of “**vi**” available. [elvis, vile, vim]
- Syntax: `vi <option> <file name>`  
e.g `$> vi demo`  
`$> vi +90 demo`
- **vi filename** : Creates a new file if it already exist, otherwise opens an existing file
- **vi -R filename** : Opens an existing file in the read-only mode
- **view filename** : Opens an existing file in read-only mode



# Operation Modes

## 1. Command mode

- Saving the files
- Moving the curser
- Cutting and pasting the lines or words
- Finding and replacing

## 2. Insert mode : Insert text into the file

Press “ESC” key, it will take you back to the command mode

# Getting out of “vi”

- **:q**- Quit out of vi without saving
- **:q!** - Forcefully quit out of vi without saving
- **:w**- For saving the current file
- **:w!**- For saving the file forcefully
- **:wq**- For saving and exiting the file
- **:wq!**- For saving and exiting the file forcefully



# Moving within a File

- **k**- Moves the cursor up one line
- **j** - Moves the cursor down one line
- **h**- Moves the cursor to the left one character position
- **l**- Moves the cursor to the right one character position

# Editing Files

- **i**- Inserts text before the current cursor location
- **I** - Inserts text at the beginning of the current line
- **a**- Inserts text after the current cursor location
- **A**- Inserts text at the end of the current line
- **o**- Creates a new line for text entry below the cursor location
- **O**- Creates a new line for text entry above the cursor location



# Deleting Characters

- **x**- Deletes the character under the cursor location
- **X** - Deletes the character before the cursor location
- **dw**- Deletes from the current location to the next word
- **d^**- Deletes from the current cursor position to the beginning of the line
- **d\$**- Deletes from the current cursor position to the end of the line
- **D**- Deletes from the cursor position to the end of the current line
- **dd**- Deletes the line the cursor is on



# Change Commands

- **cc**- Removes the contents of the line, leaving you in insert mode.
- **cw**- Changes the word the cursor is on from the cursor to the lowercase w end of the word
- **r**- Replaces the character under the cursor, vi returns to the command mode after the replacement is entered.
- **R**- Overwrites multiple characters beginning with the character currently under the cursor.
- **s**- Replaces the current character with the character you type
- **S**- Deletes the line the cursor is on and replaces it with the new text.

# Copy and Paste Commands

- **yy**- Copies the current line
- **yw**- Copies the current word from the character to lowercase w cursor is on
- **p**- Puts the copied text after the cursor.
- **P**- Puts the yanked text before the cursor.



# Word and Character Searching

- ^- Searches at the beginning of the line
- .- Matches a single character
- \*- Matches zero or more of the previous character
- \$- End of the line
- [- Starts a set of matching or non-matching expressions
- < - This is put in an expression escaped with the backslash to find the ending or beginning of a word.
- /- Searches downwards in the file
- ?- Searches backwards in the file



# Running and Substitution Commands

- **!ls** – list all the existing files
- **:s/search/replace/g** – Replace words or group of words within your files. [ **g** : stands for globally]

# Set Commands

- **set ic**- Ignores the case when searching
- **set ai**- set autoindent
- **set noai**- Unsets autoindent
- **set nu** - Displays lines with line numbers on the left side
- **set sw**- sets the width of a software tabstop
- **set ro**- Changes file type to read-only



# Important Points

- You must be in command mode to use the commands
- You must be in the insert mode to insert text in your file
- Press ESC twice to ensure that you are in command mode
- Commands are case-sensitive