# Deliverable 3

## Testing Strategy

## Group 4 — A CLI based Editor - Bloc++

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**Github Repository:** Group_4_Bloc++

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# 1 Function Description

## 1.1 Process Key Press

```
1 /*
2 * Processes key pressed by user and perform task on editor window
3 * @param[in] ASCII value of the key pressed
4 */
5 void processKeyPress(int key)
```

- **Description:**
  This function will be called infinitely inside the main method, which listens to keyboard event. Whenever user gives any command in command mode or edits the file content in insert mode, this function will be called and then subsequent function calls will be made from this function.

- **Parameters:**
  `int key`: The ASCII value of the key pressed by the user.

- **Precondition:**

  1. The editor window should be initialized and it should be in the raw mode
  2. Empty or existing file opened successfully
  3. Message shown in the status bar with the useful commands

- **Side Effects:**
  Since this function is of type void it does not return anything. However, it has some side effects on the context variable of the current session. There will be global structure for editor context which will have information like, cursor position, total number of rows, total rows used, mode of editor, etc. Let us call this global variable of type `editor_context E` for test cases.

## 1.2 Test Cases

Since this function does not return anything to run automation testing, the test file will first open a dummy file then perform the test cases. To verify the test cases the file content of dummy file will be checked programtically by opening and reading file in the test file.

| Test Case # | Description | Side Effect/Output |
|---|---|---|
| 1 | 'I' or 'i' is pressed to enter in insert mode | E.mode = 1 |
| 2 | 'Esc' key is pressed to enter command mode | E.mode = 0 |
| 3 | 'Cltr+S' key is pressed in command mode | Saves file to file system, check for the file content |
| 4 | 'Enter' key pressed in insert mode | E.cy (variable for cursor position vertically) should increment by one. |
| 5 | 'Home' key pressed in insert mode | E.cx = 0 (cursor should be placed at the beginning of the line |
| 6 | Any other key is pressed in insert mode | Corresponding character should be written to file. This test should be combined with test case #3 to verify the results. |
| 7 | Any key pressed in wrong mode. | Editor should ignore those, check for the file content to verify. |