```
Script started on 2023-10-13 03:52:41+00:00 [TERM="xterm-256color" TTY="/dev/pts/0" COLUM
NS="69" LINES="79"]
\[\033[01;34m\]\w\[\033[00m\]$ pwd
/home/runner/Lab-12-Another-Short-Practice-kcp3s
\[\033[01;34m\]\w\[\033[00m\]$ ls -la
total 2580
drwxr-xr-x 1 runner runner     290 Oct 13 03:52 .
drwxrwxrwx 1 runner runner     122 Oct 13 03:38 ..
-rwxr-xr-x 1 runner runner   17896 Oct 13 03:52 a.out
-rw-r--r-- 1 runner runner      17 Aug 18 20:59 .breakpoints
drwxr-xr-x 1 runner runner      12 Jan 24  2022 .cache
drwxr-x--- 1 runner runner     560 Oct 12 17:52 .ccls-cache
-rw------- 1 runner runner      29 Oct  3 14:07 dataone.dat
-rw------- 1 runner runner       3 Oct  3 14:07 datathree.dat
-rw------- 1 runner runner    1373 Oct  3 14:07 datatwo.dat
drwxr-xr-x 1 runner runner      68 Oct 12 18:56 .lesson
-rwxr-xr-x 1 runner runner 1287872 Oct 13 03:41 main
-rw-r--r-- 1 runner runner    2217 Oct 13 03:41 main.cpp
-rwxr-xr-x 1 runner runner 1258728 Aug 18 20:58 main-debug
-rw-r--r-- 1 runner runner   29432 Apr 21  2022 main.o
-rw-r--r-- 1 runner runner     432 Aug 18 21:02 Makefile
-rw-r--r-- 1 runner runner       0 Oct 13 03:52 Patel_Lab_12.log
-rw-r--r-- 1 runner runner    1426 Dec 21  2022 .replit
-rw-r--r-- 1 runner runner     143 Oct  3 14:08 replit.nix
\[\033[01;34m\]\w\[\033[00m\]$ cat -n maincppp
     1  #include <array>
     2  #include <fstream>
     3  #include <iostream>
     4  #include <string>
     5
     6  // Constants
     7  const int kMaxSize{20};
     8  int row[kMaxSize];
     9  int column[kMaxSize];
    10
    11  // Prototypes
    12  std::array<std::array<int, kMaxSize>, kMaxSize> FillArray(std::ifstream &,
    13                                                            int &, int &);
    14  int FindMax(const std::array<std::array<int, kMaxSize>, kMaxSize> &, int, int);
    15  int FindMin(const std::array<std::array<int, kMaxSize>, kMaxSize> &, int, int);
    16
    17  int main() {
    18    int row[kMaxSize];
    19    int column[kMaxSize];
    20
    21    std::string filename;
    22    std::ifstream file;
    23    std::cout << "Enter filename to process: ";
    24    std::cin >> filename;
    25    // Open the file
    26    file.open(filename);
    27    // If the file does not exist
    28    if (!file) {
    29      std::cout << '\n' <<filename << " not found!\n";
    30      exit(1);
    31    }
    32
    33    int rows, columns;
    34    // Calls
    35    std::array<std::array<int, kMaxSize>, kMaxSize> array =
    36        FillArray(file, rows, columns);
    37    int max = FindMax(array, rows, columns);
    38    int min = FindMin(array, rows, columns);
    39    // Outputs
    40    std::cout << "\nMin value: " << min;
    41    std::cout << "\nMax value: " << max << std::endl;
    42
    43    // Close the file
    44    file.close();
    45  }
```

```
    46
    47  std::array<std::array<int, kMaxSize>, kMaxSize>
    48  FillArray(std::ifstream &file, int &row, int &column) {
    49    std::array<std::array<int, kMaxSize>, kMaxSize> row_col_array = {};
    50    file >> row >> column;
    51
    52    if (row > 0 && column > 0) {
    53      for (int i = 0; i < row; i++) {
    54        for (int j = 0; j < column; j++) {
    55          file >> row_col_array[i][j];
    56        }
    57      }
    58    }
    59    return row_col_array;
    60  }
    61
    62  int FindMax(
    63      const std::array<std::array<int, kMaxSize>, kMaxSize> &row_col_array,
    64      int row, int column) {
    65    int max = row_col_array[0][0];
    66    for (int i = 0; i < row; i++) {
    67      for (int j = 0; j < column; j++) {
    68        if (row_col_array[i][j] > max) {
    69          max = row_col_array[i][j];
    70        }
    71      }
    72    }
    73    return max;
    74  }
    75
    76  int FindMin(
    77      const std::array<std::array<int, kMaxSize>, kMaxSize> &row_col_array,
    78      int row, int column) {
    79    int min = row_col_array[0][0];
    80    for (int i = 0; i < row; i++) {
    81      for (int j = 0; j < column; j++) {
    82        if (min > row_col_array[i][j]) {
    83          min = row_col_array[i][j];
    84        }
    85      }
    86    }
    87    return min;
    88  }
\[\033[01;34m\]\w\[\033[00m\]$ g++ main.cpp -o smallbig
\[\033[01;34m\]\w\[\033[00m\]$ ./smallbig
Enter filename to process: nofile.dat

nofile.dat not found!
\[\033[01;34m\]\w\[\033[00m\]$ ./smallbig
Enter filename to process: dataone.dat

Min value: -4
Max value: 7
\[\033[01;34m\]\w\[\033[00m\]$ ./smallbig
Enter filename to process: datatwo.dat

Min value: -99
Max value: 100
\[\033[01;34m\]\w\[\033[00m\]$ ./smallbig
Enter filename to process: datathree.dat

Min value: 0
Max value: 0
\[\033[01;34m\]\w\[\033[00m\]$ exit

Script done on 2023-10-13 03:54:22+00:00 [COMMAND_EXIT_CODE="0"]
```