**NAME-ARSHIYA NANDY**

**SECTION-J ROLL-29**

**VARIABLE DESCRIPTION**

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| Variable Name | Data type | Purpose |
| \*curl | CURL | Use it to call curl\_easy\_init() function everytime CURL library is used, that is, to make HTTP request |
| res | CURLcode | To receive HTTP requests |
| \*root | Pointer to cJSON object | Extracts JSON data from parameter ‘root’ from the API |
| \*weather | Pointer to cJSON object | Extracts JSON data from ‘weather’ parameter under ‘root’ parameter |
| \*name | Pointer to cJSON object | Extracts JSON data from ‘name’ parameter under ‘root’ parameter |
| \*description | Pointer to cJSON object | Extracts JSON data from ‘description’ parameter under ‘root’ parameter |
| \*temp | Pointer to cJSON object | Extracts JSON data from ‘temp’ parameter under ‘main’ parameter |
| \*temp\_min | Pointer to cJSON object | Extracts JSON data from ‘temp\_min’ parameter under ‘main’ parameter |
| \*temp\_max | Pointer to cJSON object | Extracts JSON data from ‘temp\_max’ parameter under ‘main’ parameter |
| \*pressure | Pointer to cJSON object | Extracts JSON data from ‘pressure’ parameter under ‘main’ parameter |
| \*humidity | Pointer to cJSON object | Extracts JSON data from ‘humidity’ parameter under ‘main’ parameter |

**Function description:**

convert( ) –

Takes temperature in Kelvin as parameter and returns temperature in degree Celsius.

Return type – double

write\_callback( ) –

Accepts the contents of the API and it’s sizes. This function extracts the JSON data from API and prints them respectively.

Return type – size\_t

main( ) –

This is the main function of the program where the curl variables are declared and respective functions are called.

Return type – int

**Database Description:**

The program uses OpenWeather api to retrieve the current weather data from the server using JSON and CURL libraries. The API responses datas like, Location, current temperature, maximum and minimum temperature, pressure, humidity, wind speed and much more.

To retrieve such data, cjson library is used. Each parameters are declared using object pointers and are called from the API.