

Lab-2: Big Endian and Little Endian

Lab. Exercises (LE)

- LE2.1** Write a program to extract the first byte and last byte of an unsigned integer, input with command line arguments.
- LE2.2** Write a program to extract each byte from a given number and store them in separate character variables and print the content of those variables.
- LE2.3** Write a program to find out if the underlying architecture/machine is little endian or big endian.
- LE2.4** Write a program to extract the first byte and last byte of an unsigned integer, input with keyboard. If first byte and last byte are same, then it will ask the user to input a new integer again. This process will continue till both bytes are same. If both are not same then it will print the message as “Succeeded with 2 attempts” where 2 is the number of entering the unsigned number through keyboard.
- LE2.5** Write a program to extract each byte as character from the representation of multibyte data types on your machine and its corresponding memory locations. By studying the data in memory, find out if the underlying architecture/machine is little endian or big endian.
- LE2.6** Write a C program to convert Little Endian to Big Endian format by using a suitable user defined function for it.
- LE2.7** Write a program to extract each byte as character from the representation of multibyte data types on your machine and store the above extracted bytes with the following structure. Now display the contents of structure members.
- ```
struct pkt
{
 char ch1;
 char ch2[2];
 char ch3;
}
```
- LE2.8** Write a program to modify the above program to regenerate the original number from the structure members. Display the number.
- LE2.9** Write a program to extract each byte from a signed integer and display the content of each location in decimal.