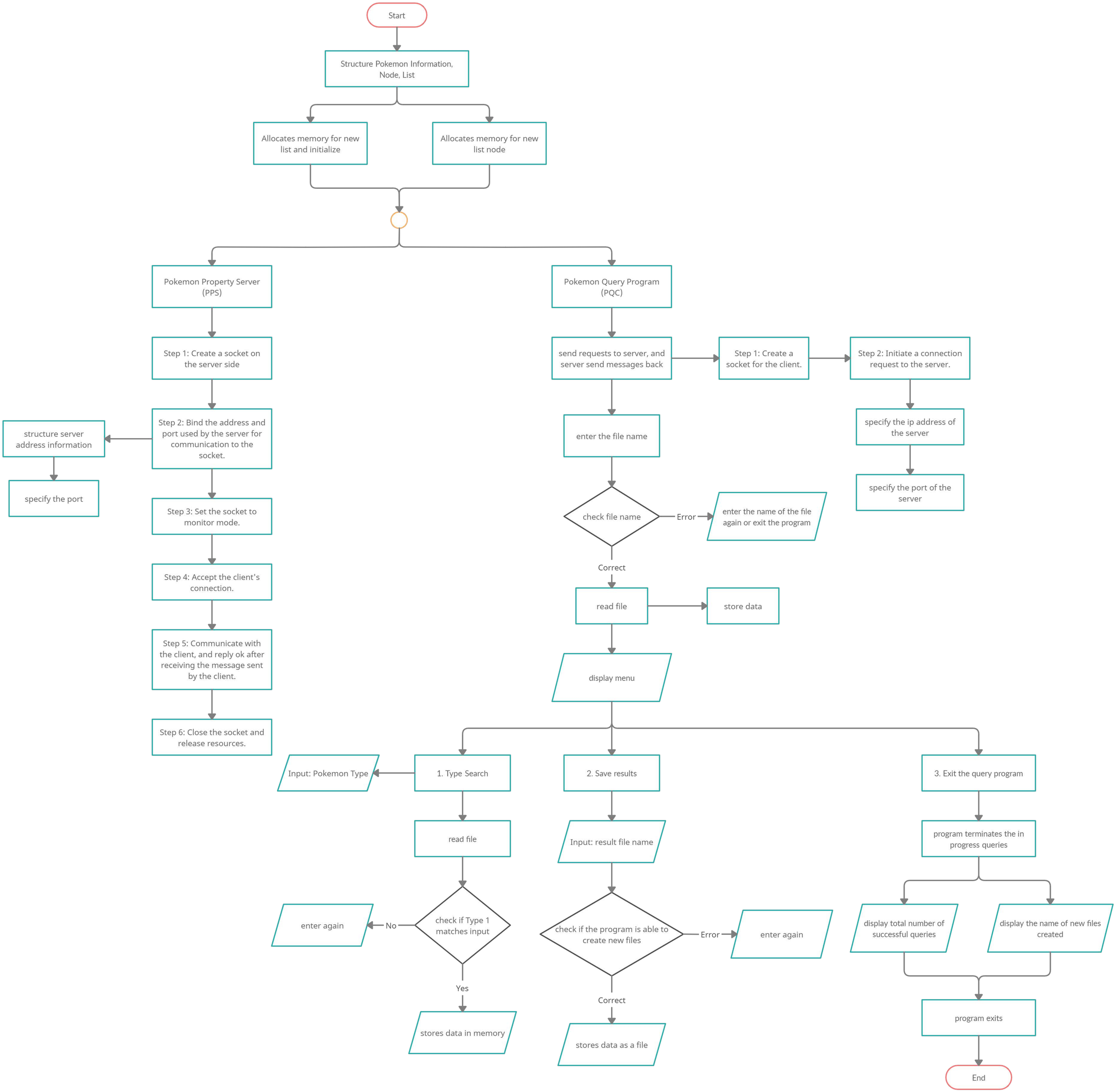
Start
Structure Pokemon Information, Node, List
Allocates memory for new list and initialize
Allocates memory for new list node
Pokemon Property Server (PPS)
Step 1: Create a socket on the server side
Step 2: Bind the address and port used by the server for communication to the socket.
structure server address information
specify the port
Step 3: Set the socket to monitor mode.
Step 4: Accept the client's connection.
Step 5: Communicate with the client, and reply ok after receiving the message sent by the client.
Step 6: Close the socket and release resources.
Pokemon Query Program (PQC)
send requests to server, and server send messages back
Step 1: Create a socket for the client.
Step 2: Initiate a connection request to the server.
specify the ip address of the server
specify the port of the server
enter the file name
check file name
Error
enter the name of the file again or exit the program
Correct
read file
store data
display menu
1. Type Search
Input: Pokemon Type
read file
check if Type 1 matches input
No
enter again
Yes
stores data in memory
2. Save results
Input: result file name
check if the program is able to create new files
Error
enter again
Correct
stores data as a file
3. Exit the query program
program terminates the in progress queries
display total number of successful queries
display the name of new files created
program exits
End

It will have two c and two header files. One of c file and header file is Pokemon Property Server(PPS), and another c file and header file is Pokemon Query Client(PQC). These two header files will define the list of functions used, and it is convenient for checking the functions that can be called. The PQC's c file will call the declaration of the header file to run the program. The PPS's c file will be server to receive client's request and send messages back.

The PPS uses header file to define, and uses c file to implement functions, so the server can receive client's request message and send messages to client. The PQC uses header file to define, and uses c file to implement functions, so the client can send requests to server, and receive messages from server to run the query program.

C language's rich library, memory management, pointers, and extension used to implement the requirements. C provides a lot of inbuilt functions that make the development fast, supports the feature of dynamic memory allocation, interact with the memory by using the pointers, and call the function within the function.

Nine libraries will be use. <stdlib.h>, <stdio.h>, <string.h> and <math.h> used to define numeric conversion functions, memory allocation, process control functions, core input and output functions, string-handling functions and common mathematical functions. These used to initialize data, save data into memory and output. <unistd.h> is a linux system call, including many function prototypes of UNIX system services. <netdb.h> is to define internet structure, such as variables and functions. <sys/types.h> contains a number of basic derived types that should be used whenever appropriate, such as time_t. <sys/socket.h> defines the sockaddr structure. <arpa/inet.h> is definitions for internet operations, such as in_addr structure.