## String type

The string data type is supplied by the C++ standard library. To use it you MUST include the string header file as in

#include <string>

#### Example

string name = “William Jacob”;

This statement declares a string variable name and initializes it to the string “William Jacob”.

The variable name can store any size string.

#### More examples

string str1, str2, str3;

str1 = “Hello There”;

str2 = str1; // copies value of str1 to str2

str1 = “Hello”;

str2 = str1 + “ There”; // str2 <- “Hello There”

str2 = “Hello” + “ There”; // Illegal. One of the operands

must be a string variable.

str2[6] == ?;

What does this statement do?

str2[6] = ‘t’;

## Some string functions

string strVar, str;

strVar.at(i)

strVar[i];

strVar.append(n, ch); // appends n copies of ch to strVar

strVar.append(str);

strVar.clear(); // deletes all characters in strVar

strVar.compare(str); //returns 1, if strVar>str,0 if strVar= str, -1 otherwise

strVar.empty(); //Returns true if strVar is empty; else false

strVar.erase(); // Deletes all characters in strVar

strVar.erase(pos, n); // Deletes n chars from strVar from position n

strVar.find(str); // Returns index of first occurrence of str in strVar..

strVar.find(str, pos);//returns index of first occurrence at or after pos in strVar. Search starts at pos.

strVar.find\_first\_of(str, pos);

strVar.find\_first\_not\_of(str, pos);

strVar.insert(pos, n, ch); // inserts n occurrences of ch at index pos into strVar.

strVar.insert(pos, str);

strVar.length(); // returns number of characters in strVar

str.size();

strVar.replace(pos, n, str); // starting at index pos, replaces the next n characters of strVar with all characters of str. If n > length of strVar, then all characters until the end of strVar are replaced

strVar.substr(pos, len); // returns a string that is a substring of strVar starting at pos. The length of substring is at most len characters.