**NAME – Yash Ginoya**

**ROLL NO. – 20BCE075**

**COURSE – 2CS701- Compiler Construction**

# PRACTICAL – 8

**AIM: To implement a Type Checker.:** to assign Data type to each identifier as per declaration statement. Verify Data type as per each programming construct and report appropriate error message

**Methodology Followed:**

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| --- |
| #include <iostream> using namespace std;  int main() { int n, i, flag = 0; char vari[15], typ[15], b[15], c; cout << "Enter the number of variables: "; cin >> n;  for (i = 0; i < n; i++) { cout << "\nEnter the variable " << i + 1 << " : "; cin >> vari[i]; cout << "Enter the type of variable " << i + 1 << " (float-f, int-i) :  "; cin >> typ[i]; if (typ[i] == 'f') { flag = 1;  }  }  cout << "\nEnter the Expression (end with $) : "; i = 0; cin.ignore(); *// Ignore the newline character* while ((c = cin.get()) != '$') { b[i] = c; i++; }  int k = i;  for (i = 0; i < k; i++) { if (b[i] == '/') { flag = 1; break;  } |
| } for (i = 0; i < n; i++) { if (b[0] == vari[i]) { if (flag == 1) { if (typ[i] == 'f') { cout << "\nThe datatype is correctly defined..!" << endl; break; } else { cout << "Identifier " << vari[i] << " must be a float type..!" << endl;  break;  } } else { cout << "\nThe datatype is correctly defined..!" << endl; break;  }  }  } return 0;  } |

**Output:**

