

Implementation of Transition Diagram

```
Token nexttoken() {
while (1) {
    switch (state) {
    case 0:        c = nextchar();
                  if (c is white space) state = 0;
                  else if (c == '<') state = 1;
                  else if (c == '=') state = 5;
                  ...
    case 9:        c = nextchar();
                  if (isletter( c ) ) state = 10; else state =fail();
                  break;
    case 10:       c = nextchar();
                  if (isletter( c ) || isdigit( c ) ) state = 10; else state 11
    case 11:       retract(1); insert(id);
                  return;
```