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1)Variable declaration

Positive case for variable definition

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){int a = b;}
Valid syntax
```

Negative case for variable definition

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){int a = b}
Error: syntax error,line number: 1,token: }
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)>
```

Positive case for variable declaration

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){int b;}
Valid syntax
```

Negative case for variable declaration

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){int ;}
Error: syntax error,line number: 1,token: ;
```

Variable definition with expressions

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){int a = b+c;}
Valid syntax
```

2) If

Positive testcase

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){if(a<b){ int b;}}
Valid syntax
```

Negative testcase

```
int main(){if(a<b { int b;}}
Error: syntax error,line number: 3,token: int
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)>
```

3)If-else

Positive testcase

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){if(a<b){ int b;}else{a=c;}}
Valid syntax
```

Negative testcase

```
int main(){if(a<b){ int b; } ese{a=c;}}
Error: syntax error,line number: 3,token: int
```

4)do-while

Positive testcase

```
PS C:\Users\HP World\OneDrive\Desktop\cd_2025\lexer and parser(final code)> ./parser_program
int main(){do{a = a+ 1;} while(a<5);}
Valid syntax
```

Negative testcase

```
int main(){do{a = a+ 1;  while(a<5);}
Error: syntax error,line number: 3,token: int
```