

# University of Central Punjab (UCP)

**Academic Year:** 2022–2026  
**Department:** Computer Science  
**Project:** Compiler Construction  
**Subject:** CC  
**Section:** "G-1"  
**Submitted To:** Prof Asif Farooq  
**Full Name:** Mian Shahab Ahmad  
**Roll No:** 0436  
**Date of Submission:** 09/11/2025

## Phase 1 Deliverables Checklist:

- Regex definitions table
- Token types and examples for the language:

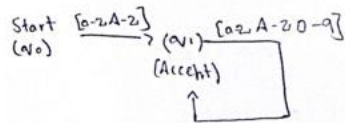
Token Type	Regular Expression	Examples
Identifier	<code>[a-zA-Z_][a-zA-Z0-9_]*</code>	
Keyword	<code>strategy asset ...</code>	
Integer	<code>[0-9]+</code>	
Float	<code>[0-9]+.[0-9]{1,2}</code>	
Operator	<code>=, &gt;, &lt;, *, +</code>	
Punctuation	<code>;, (, ), {, }, "</code>	
String	<code>"[^"]*"</code>	

- *Explanation:* Every row describes a valid token in language, including its regular expression and usage examples. This table helps explain how the lexer recognizes each token class.

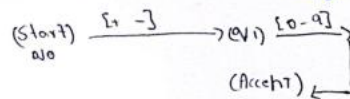
**Finite Automata Diagrams:** (Draw by hand)

## Finite Automata (FA)

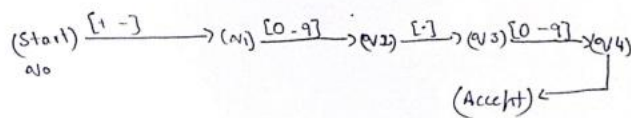
### Identifier Recognition



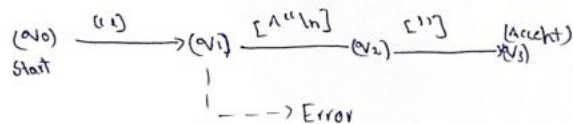
### Integer Number Recognition



Float



String Literal



## Keyword Specifications and Explanations:

A table of 15 keywords from Language, each explained for financial trading and programming logic:

Keyword	Meaning/Role	Explanation
<b>Khamoshi</b>	Control	main function — Program entry/start point.
<b>Dekhlo</b>	Conditional	if — Checks a condition.
<b>Nahintoh</b>	Conditional	else — Alternative branch.
<b>Jab-tak</b>	Loop	while — Repeat if condition true.
<b>Saare-bache</b>	Loop	for — Loop control, student list style.
<b>Class-se-bahir</b>	Flow	break — Exit a loop/block.
<b>Chordo</b>	Flow	continue — Skip rest, next loop step.
<b>Jawab-do</b>	Flow	return — Give back result/answer.
<b>Kitne-number</b>	Type	int — Integer value.

<b>Percentoge</b>	Type	float — Decimal number/C.GPA.
<b>Naam-batao</b>	Type	string — Text value like student name.
<b>Kuch-nahin</b>	Type	null — No value/absence.
<b>hamesha</b>	Modifier	const — Never change/final value.
<b>Foil-he</b>	Control	exit — Quit program.
<b>Fail-ho</b>	Status	fail — Used for errors/fail status.

**GitHub repository requirements:**

- Must contain:
  - Lex/scanner.l file
  - Your unique sample test program
  - tokens.txt output file
  - Sample execution video (max 5 min)
- GitHub [https://github.com/ROCKYNWER/StrictPakistaniTeacherLang\\_cc\\_project](https://github.com/ROCKYNWER/StrictPakistaniTeacherLang_cc_project)