Original Grammar (with project-defined modifications)

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1. program → **program id (** identifier\_list **);** declarations subprogram\_declarations compound\_statement **.**

2. identifier\_list → **id** | identifier\_list **,** **id**

3. declarations → declarations **var id :** type | **epsilon**

4. type → standard\_type | **array [ num .. num ] of** standard\_type

5. standard\_type → **integer | real**

6. subprogram\_declarations → subprogram\_declarations subprogram\_declaration **; | epsilon**

7. subprogram\_declaration → subprogram\_head declarations subprogram\_declarations compound\_statement

8. subprogram\_head → **function id** arguments **:** standard\_type **;**

9. arguments → **(** parameter\_list **) | epsilon**

10. parameter\_list → **id** : type | parameter\_list **; id** **:** type

11. compound\_statement → **begin** optional\_statements **end**

12. optional\_statements → statement\_list | **epsilon**

13. statement\_list → statement | statement\_list **;** statement

14. statement → variable **assignop** expression

| compound\_statement

| **if** expression **then** statement

| **if** expression **then** statement **else** statement

| **while** expression **do** statement

15. variable → **id** | **id [** expression **]**

16. expression\_list →expression | expression\_list **,** expression

17. expression → simple\_expression | simple\_expression **relop** simple\_expression

18. simple\_expression → term | sign term | simple\_expression **addop** term

19. term → factor | term **multop** factor

20. factor → **id** | **id (** expression\_list **) | num** | **(** expression **) | id** **[** expression **]** | **not** factor

21. sign → **+** | **-**