

Lecture 17 Worksheet

Question 1

List two reasons why it might be advantageous to use intermediate code when compiling from a high level language.

Question 2

When translating expressions why might having both the tokens “+” and “++” add to the complexity of the translation process?

Question 3

Draw brackets around the following sentence corresponding to parse 1 and parse 2 on the lecture slides respectively:

She ate radishes with her friend (parse 1)

She ate radishes with her friend (parse 2)

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Question 4

Look at the grammar on the slide referring to this question. Following the grammar, say whether or not the following program is valid:

```
while(expression)  
    statement;  
    if (expression)  
        statement;
```

Note, you can assume that `expression` and `statement` in themselves represent valid code – it is the other code we want to check. Is the following program valid?

```
while(expression)  
    if (expression)  
    {  
        statement;  
    }
```