

Princeton University  
COS 217: Introduction to Programming Systems  
Assembler Assignment  
Suggestions for Creating the Data Section

Assuming `pcDataCode` points to the beginning of the data section memory block, and `iDataLocCtr` is the data section location counter...

For the `.ascii` directive:

```
oArg = Instr_getArg(oInstr, i);  
pcString = Arg_getString(oArg);  
iStringLength = strlen(pcString);  
pcDest = pcDataCode + iDataLocCtr;  
memcpy(pcDest, pcString, iStringLength);  
iDataLocCtr += iStringLength;
```

For the `.half` directive:

```
oArg = Instr_getArg(oInstr, i);  
sLiteral = (short)Arg_getLiteral(oArg);  
pcDest = pcDataCode + iDataLocCtr;  
memcpy(pcDest, &sLiteral, 2);  
iDataLocCtr += 2;
```