

CDA 3101 Project 6

Objective:

Write a MIPS assembly language program using the MARS simulator which will implement and test (at least) these two functions (described using C prototype notation):

```
// Reads a string from the user and converts to an integer
// Uses the buffer provided to store the string
// Uses the base provided for interpreting the string
// Should work for any base from 2-36
// Returns the integer
// NOTE: Need not work for negative values
int readIntAnyBase(char *buffer, int base);

// Prints "num" using the supplied "base"
// Uses the buffer provided to store the string
// Does not print leading zeros or blanks
// NOTE: Need not work for negative values
void printIntAnyBase(int num, char *buffer int base);
```

Specification:

1. Write a main function that demonstrates that both functions work correctly.
2. Be sure that the code will handle up to 32 digits.
3. Your code need NOT handle negative values.
4. Use the MIPS \$a registers for passing parameters and the \$v registers for return values.

Extra Challenge:

Add code so that both functions handle negative values.

Due:

Friday April 8, before 5:00 PM. (Late submissions before 5 PM April 9)

Hand in:

Submit your source code. Use a (.s) extension on the filename. Submit through eLearning.