

## DAC 0521 MET-M Writeup

General Purpose Register - It is a fixed-size data pocket(buffer) hard wired within the processor and identified by its machine specific name. It holds an intermediate value for a data-processing instruction (ADD, SUB, MUL, AND, CMP, ...).

General purpose integer registers on 64 bit

(A) x86 (Intel Core, AMD Ryzen) Processor (x64 architecture)

rax, rbx, rcx, rdx, rsi, rdi, rbp, rsp, r8-r15

(B) ARM (Qualcomm Snapdragon, Apple M1) Processor (a64 architecture)

x0-x30, sp

### C Data Types

Variable declaration := qualifier datatype identifier = initializer;

Primitive Data Type	Qualifier	Bit Size	Value	Format Spec
char	-	8	ASCII code	c
int (default)	-	32	Integer	d, x
"	short	16	"	h
"	long	machine	"	l
"	long long	64	"	ll
"	unsigned	-	Non-negative Integer	u
float	-	32	Single precision real number	f
double	-	64	Double precision real number	lf