Prelab 11: SysTick Timer

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Deliverables

I edited the pdf file, it didn't quite go as well as expected... A little below are the tables filled out.

Part A: System Timer Register Names

What is the base address of this peripheral? _0x_E000E010_____
(hint: address of the first register in the peripheral)

Use Section 4.4 of the Cortex-M4 User Guide (link provided above) to find the necessary information on the four system timer registers to fill in the following table:

Register Name	Address	Offset*	Description
SYST_CSR	0xE000E010	+0	SysTick Control and status register
SYST_RVR	0xE000E014	+4	Systick Reload Value Register
SYST_CVR	0xE000E018	+8	SysTick Current value Register
SYST_CALIB	0xE000E01C	+12	SysTick Calibration Value

* Offset from the base address

Part B: System Timer Field Names

Each timer register has one or more bit fields associated with it. Fill in the following table for all nine non-reserved bit fields:

Name	Assoc. Register	Function	Offset*	Size (bits)
COUNTFLAG	SYST_CSR	Returns 1 if timer counted to 0 since last read	16	1
CLKSOURCE	SYST_CSR	Indicates clock source	2	1
TICKINT	SYST_CSR	Enables SysTick exception request	1	1
ENABLE	SYST_CSR	Enables the counter	0	1
RELOAD	SYST_RVR	Value to load into the SYST_CSV register when the counter is enabled and when it reaches 0	0	24
CURRENT	SYST_CVR	Reads return the current value of SysTick counter	0	24
NOREF	SYST_CALIB	Indicates whether device provides a ref clock to processor	31	1
SKEW	SYST_CALIB	Indicates whether the TENMS value is exact	30	1
TENMS	SYST_CALIB	Reload value for 10ms timing subject to sys clock skew errors	0	24