Microcontrollers WS2022/23

Lab Report 5

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Task 1:

Arrangement:
- Pin B0 → Key 1 (read)
- Pin B1 → Key 2

It shows the standby screen with the current time and temperature when powered on. Pressing Key 1 shows "No Data" if it's the first time running the code else it shows the total number of recordings stored and the current time and then with each press of Key 1 it shows each reading along with the time it was taken one by one. After showing all the readings it returns to the standby screen. If we press and hold both Key 1 and Key 2 at the same time before going back to the standby screen, the stored values are deleted and "Memory Cleared" is shown.

Pressing Key 2 shows "Memory not Empty" if there are already stored values. If there are no pre-stored values, then it shows the current time and temperature and the number of recordings and starts recording values every 5 seconds and shows "Saved" every time it stores a value in the memory until both Key 1 and Key 2 are pressed at the same time or it runs out of memory.

Recording Stop

Memory Cleared

Recording:002
17:53:02-21.5C

Recording:001
17:52:57-21.5C

Recording: 004
17:53:2?-21.5 C

Memory not empty

SAVED!

Recording: 001
17:53:01-21.5 C

No Data

17:52:33 2000
01.01 21.5 C