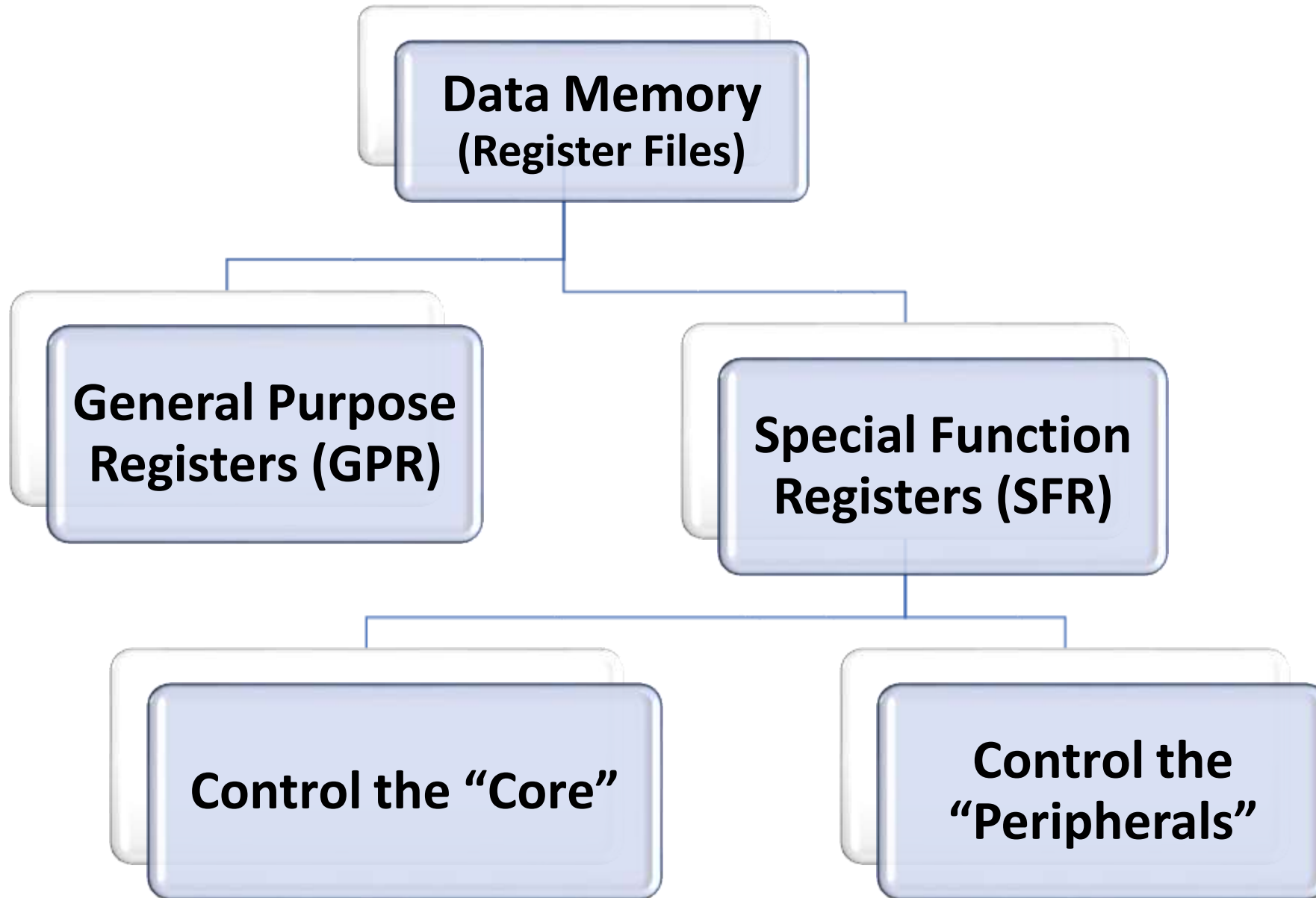


Memory Organization:

It has three memory blocks.

- Program memory
- Data memory
- Stack
- **Program memory :**
- PIC16C7X family has a _____13_____ program counter
- Capable of addressing an 8K x 14 program memory





Addressing modes of PIC 18 microcontroller



- The PIC 18 microcontroller supports following addressing modes.

1. Immediate addressing mode
2. Direct addressing mode
3. Register addressing mode
4. Indexed ROM addressing mode

1. **Immediate addressing mode:**

- In immediate addressing mode, the immediate data is specified in the instruction.
- The immediate addressing mode is used to load the data into PIC registers and WREG register.
- However, it cannot use to load data into any of the file register.
- Example:
 1. MOVLW 50H
 2. ANDLW 40H
 3. IORLW 60H



Addressing modes of PIC 18 microcontroller



Direct addressing mode:

- In direct addressing mode, the 8-bit data in RAM memory location whose address is specified in the instruction.
- This mode is used for accessing the RAM file register.
- Example:
 1. MOVWF 0X10
 2. MOVFF PORTB, POTRC
 3. MOVFF 0X30, PORTC

Register indirect addressing mode:

- Register indirect addressing mode is used for accessing data stored in the RAM part of file register.
- In this addressing mode a register is used as pointer to the memory location of the file register.
- Three file select registers are used. They are FSR0, FSR1 and FSR2.
- Example:
 1. LFSR1, 0X55
 2. MOVWF INDF2