There are **14** 16-bit registers in a 8086 microprocessor:

* Four 16-bit general purpose registers (AX, BX, CX and DX). Each of these can be split into two 8-bit registers.(For instance AX can be split into AH and AL) The letter X is used to specify the complete 16-bit register whereas H and L are used to specify the lower and higher bytes of a particular register. These registers are used for holding data, variables and intermediate results temporarily.
* Four 16-bit segment registers which are ES, SS, DS and CS.(Extra segment, Stack Segment, Data Segment and Code Segment) They hold the upper 16 bits and starting addresses of the four memory segment on which 8086 works at a particular time wherein the starting address is known as base address/segment base.
* Three 16-bit pointer registers which are IP,BP and SP(Index pointer, Base pointer and Stack pointer) These hold the offset within code data and stack segments respectively.
* Two 16-bit Index registers which are DI and SI.(Destination Index and Source Index ) These can be used as general purpose registers as well as for offset storage in case of indexed, based indexed and relative based indexed addressing modes.
* One 16-bit flag register which has 9 specific purpose flags and the other 7 flags are unidentified. Out of those 9, 6 indicate specific conditions produced by the instruction which are: CF, PF, AF, ZF, SF and OF.(Carry flag, Parity flag, Auxilary flag, Zero flag, Sign flag and Overflow flag) The other 3 flags are Single step trap, Interrupt enable and string direction.