1. Purpose
   1. A Software Engineer who does not like doing classful subnetting. To work more efficiently, he requires the use of a subnet calculator that will not only validate an IP address but will display other properties such as First Octet range, Hex IP address, Wildcard Mask, Host Address Range, Subnet ID and Subnet Bitmap.This would allow faster productivity, more efficient and accurate work flow and could be open sourced for anyone to use.
2. Functional Requirements
   1. Provide the following features
      1. Network Class
      2. IP Address
      3. Subnet Mask
      4. Subnet Bits
      5. Maximum Subnets
      6. First Octet Range
      7. Hex IP Address
      8. Wildcard Mask
      9. Mask Bits
      10. Hosts per Subnet
      11. Host Address Range
      12. Subnet ID
      13. Broadcast Address