| **Functions** | **Blocks of Assembly Code** | **Explanation of Functionality** |
| --- | --- | --- |
| 0x0000000000000bea main | 0x0000000000000bea <+0>: push %rbp  0x0000000000000beb <+1>: mov %rsp,%rbp  0x0000000000000bee <+4>: push %rbx  0x0000000000000bef <+5>: sub $0x58,%rsp  0x0000000000000bf3 <+9>: mov %fs:0x28,%rax  0x0000000000000bfc <+18>: mov %rax,-0x18(%rbp)  0x0000000000000c00 <+22>: xor %eax,%eax  0x0000000000000c02 <+24>: lea -0x40(%rbp),%rax  0x0000000000000c06 <+28>: mov %rax,%rdi  0x0000000000000c09 <+31>: callq 0xa90 <\_ZNSt7\_\_cxx1112basic\_stringIcSt11char\_traitsIcESaIcEEC1Ev@plt>  0x0000000000000c0e <+36>: lea 0x21b(%rip),%rsi # 0xe30  0x0000000000000c15 <+43>: lea 0x201404(%rip),%rdi # 0x202020 <\_ZSt4cout@@GLIBCXX\_3.4>  0x0000000000000c1c <+50>: callq 0xa60 <\_ZStlsISt11char\_traitsIcEERSt13basic\_ostreamIcT\_ES5\_PKc@plt>  0x0000000000000c21 <+55>: lea 0x250(%rip),%rsi # 0xe78  0x0000000000000c28 <+62>: lea 0x2013f1(%rip),%rdi # 0x202020 <\_ZSt4cout@@GLIBCXX\_3.4>  0x0000000000000c2f <+69>: callq 0xa60 <\_ZStlsISt11char\_traitsIcEERSt13basic\_ostreamIcT\_ES5\_PKc@plt>  0x0000000000000c34 <+74>: lea -0x5c(%rbp),%rax  0x0000000000000c38 <+78>: mov %rax,%rsi  0x0000000000000c3b <+81>: lea 0x2014fe(%rip),%rdi # 0x202140 <\_ZSt3cin@@GLIBCXX\_3.4>  0x0000000000000c42 <+88>: callq 0xa30 <\_ZNSirsERi@plt>  0x0000000000000c47 <+93>: lea 0x252(%rip),%rsi # 0xea0  0x0000000000000c4e <+100>: lea 0x2013cb(%rip),%rdi # 0x202020 <\_ZSt4cout@@GLIBCXX\_3.4>  0x0000000000000c55 <+107>: callq 0xa60 <\_ZStlsISt11char\_traitsIcEERSt13basic\_ostreamIcT\_ES5\_PKc@plt>  0x0000000000000c5a <+112>: lea -0x58(%rbp),%rax  0x0000000000000c5e <+116>: mov %rax,%rsi  0x0000000000000c61 <+119>: lea 0x2014d8(%rip),%rdi # 0x202140 <\_ZSt3cin@@GLIBCXX\_3.4>  0x0000000000000c68 <+126>: callq 0xa30 <\_ZNSirsERi@plt>  0x0000000000000c6d <+131>: mov -0x5c(%rbp),%edx  0x0000000000000c70 <+134>: mov %edx,%eax  0x0000000000000c72 <+136>: shl $0x2,%eax  0x0000000000000c75 <+139>: add %edx,%eax  0x0000000000000c77 <+141>: mov %eax,-0x54(%rbp)  0x0000000000000c7a <+144>: mov -0x54(%rbp),%eax  0x0000000000000c7d <+147>: add $0x3,%eax  0x0000000000000c80 <+150>: mov %eax,-0x50(%rbp)  0x0000000000000c83 <+153>: mov -0x50(%rbp),%eax  0x0000000000000c86 <+156>: add %eax,%eax  0x0000000000000c88 <+158>: mov %eax,-0x4c(%rbp)  0x0000000000000c8b <+161>: mov -0x58(%rbp),%edx  0x0000000000000c8e <+164>: mov -0x4c(%rbp),%eax  0x0000000000000c91 <+167>: add %edx,%eax  0x0000000000000c93 <+169>: mov %eax,-0x48(%rbp)  0x0000000000000c96 <+172>: mov -0x48(%rbp),%eax  0x0000000000000c99 <+175>: sub $0x6,%eax  0x0000000000000c9c <+178>: mov %eax,-0x44(%rbp)  0x0000000000000c9f <+181>: mov -0x44(%rbp),%eax  0x0000000000000ca2 <+184>: mov %eax,%esi  ---Type <return> to continue, or q <return> to quit---  0x0000000000000ca4 <+186>: lea 0x201375(%rip),%rdi # 0x202020 <\_ZSt4cout@@GLIBCXX\_3.4>  0x0000000000000cab <+193>: callq 0xab0 <\_ZNSolsEi@plt>  0x0000000000000cb0 <+198>: lea 0x20f(%rip),%rsi # 0xec6  0x0000000000000cb7 <+205>: lea 0x201362(%rip),%rdi # 0x202020 <\_ZSt4cout@@GLIBCXX\_3.4>  0x0000000000000cbe <+212>: callq 0xa60 <\_ZStlsISt11char\_traitsIcEERSt13basic\_ostreamIcT\_ES5\_PKc@plt>  0x0000000000000cc3 <+217>: lea -0x40(%rbp),%rax  0x0000000000000cc7 <+221>: mov %rax,%rsi  0x0000000000000cca <+224>: lea 0x20146f(%rip),%rdi # 0x202140 <\_ZSt3cin@@GLIBCXX\_3.4>  0x0000000000000cd1 <+231>: callq 0xa80 <\_ZStrsIcSt11char\_traitsIcESaIcEERSt13basic\_istreamIT\_T0\_ES7\_RNSt7\_\_cxx1112basic\_stringIS4\_S5\_T1\_EE@plt>  0x0000000000000cd6 <+236>: lea 0x203(%rip),%rsi # 0xee0  0x0000000000000cdd <+243>: lea 0x20133c(%rip),%rdi # 0x202020 <\_ZSt4cout@@GLIBCXX\_3.4>  0x0000000000000ce4 <+250>: callq 0xa60 <\_ZStlsISt11char\_traitsIcEERSt13basic\_ostreamIcT\_ES5\_PKc@plt>  0x0000000000000ce9 <+255>: mov $0x0,%ebx  0x0000000000000cee <+260>: lea -0x40(%rbp),%rax  0x0000000000000cf2 <+264>: mov %rax,%rdi  0x0000000000000cf5 <+267>: callq 0xa40 <\_ZNSt7\_\_cxx1112basic\_stringIcSt11char\_traitsIcESaIcEED1Ev@plt>  0x0000000000000cfa <+272>: mov %ebx,%eax  0x0000000000000cfc <+274>: mov -0x18(%rbp),%rcx  0x0000000000000d00 <+278>: xor %fs:0x28,%rcx  0x0000000000000d09 <+287>: je 0xd2c <main+322>  0x0000000000000d0b <+289>: jmp 0xd27 <main+317>  0x0000000000000d0d <+291>: mov %rax,%rbx  0x0000000000000d10 <+294>: lea -0x40(%rbp),%rax  0x0000000000000d14 <+298>: mov %rax,%rdi  0x0000000000000d17 <+301>: callq 0xa40 <\_ZNSt7\_\_cxx1112basic\_stringIcSt11char\_traitsIcESaIcEED1Ev@plt>  0x0000000000000d1c <+306>: mov %rbx,%rax  0x0000000000000d1f <+309>: mov %rax,%rdi  0x0000000000000d22 <+312>: callq 0xac0 <\_Unwind\_Resume@plt>  0x0000000000000d27 <+317>: callq 0xa70 <\_\_stack\_chk\_fail@plt>  0x0000000000000d2c <+322>: add $0x58,%rsp  0x0000000000000d30 <+326>: pop %rbx  0x0000000000000d31 <+327>: pop %rbp  0x0000000000000d32 <+328>: retq | Asks user to enter first number of age.  Asks user to enter 2nd number of age.  Performs multiple math operations to guess users age. Displays the users age. |
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