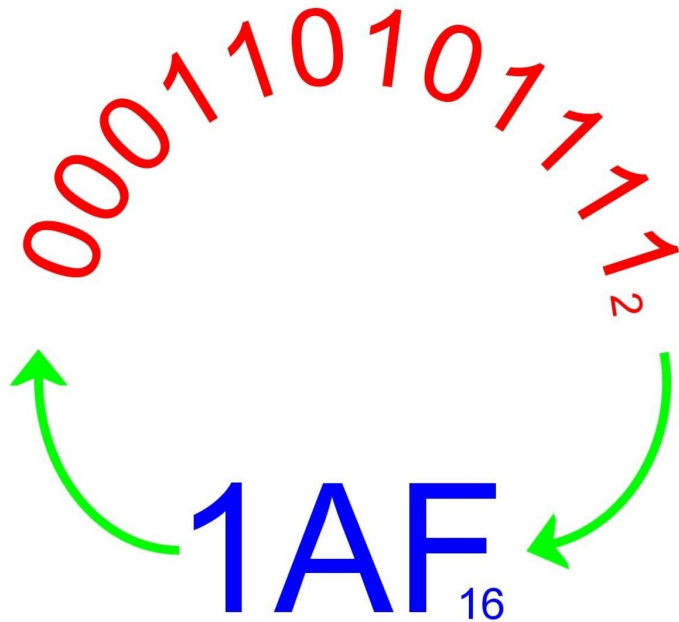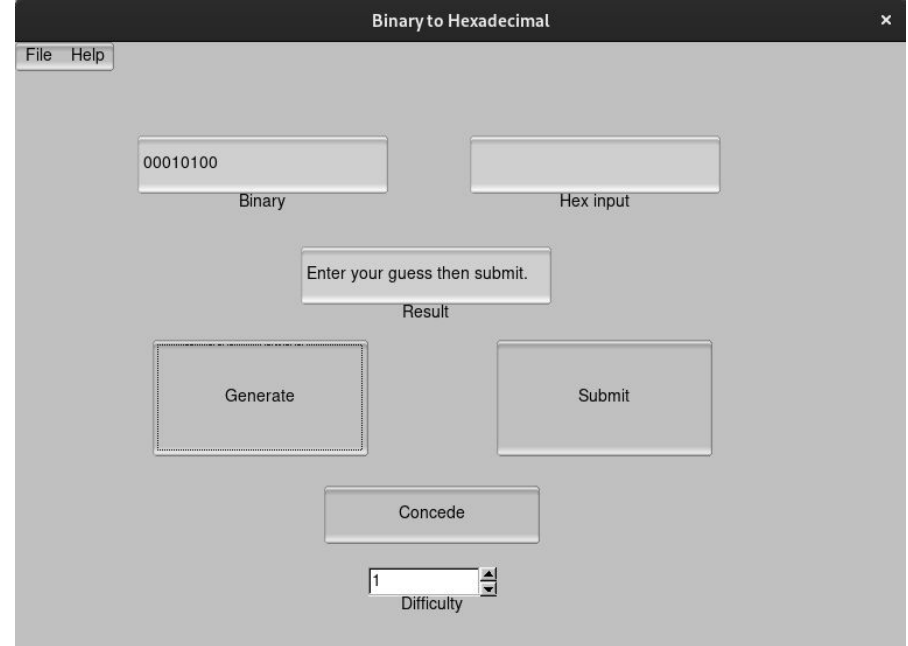# Binary to Hexadecimal Tester

By Kelby Hubbard

Why should I know hexadecimal?

- Converting from Binary to Hex can be very confusing
- With practice comes perfect!
- Easier to express binary numbers through hexadecimal
- Great for CS Students or anyone looking to learn

$$000110101111_2$$

$$1AF_{16}$$

My Program

- Easy to use
- Adjustable difficulty
- Graphic user interface
- Keyboard shortcuts!

C++ and Assembly Integration

- Integrated FLTK (C / C++) for a clean and approachable GUI
- String calls and FLTK value outputs passed directly from assembly
- FLTK strings require C style strings (which is exactly how assembly handles them)
- Random number generation depending on difficulty level through assembly

Lessons Learned & What I'd do Differently

- Combining both C++ and Assembly
  - Passing different types to and from Assembly
- Importance of an easy to use GUI
- Add more features
  - Adaptable difficulty
  - More stylish GUI
  - See past answers / problems
  - Add even more Assembly

Application Demonstration