Basic Fortran Examples for Beginners

This short document shows a few simple Fortran 90 programs for people starting to learn the language. Each example can be compiled with gfortran file.f90 -o prog and run as ./prog.

1 Hello World

The classic first program — prints a greeting to the terminal.

```
program hello
print *, "Hello, World!"
end program hello
```

2 Reading Input and Simple Math

Shows how to read a number from the user and print its square.

```
program square_number
implicit none
real :: x

print *, "Enter_a_number:"
read *, x
print *, "Its_square_is", x**2
end program square_number
```

3 Simple Loop and Sum

Demonstrates a do loop and adding up integers from 1 to n.

```
program sum_loop
      implicit none
2
      integer :: i, n, res
      print *, "Enter_an_integer_n:"
      read *, n
      res = 0
      do i = 1, n
9
          res = res + i
10
          print *, "The result for i = ", i, "is: ", res
11
      end do
12
13
  end program sum_loop
```

Tips for Beginners

- Always put implicit none at the top to catch undeclared variables.
- Compile with -Wall -Wextra (e.g. gfortran -Wall -Wextra file.f90) to get useful warnings.
- Use the .f90 extension for modern Fortran code.