## 1. if and else

now <- Sys.time()  
weekday <- format(now, "%A")  
monthday <- format(now, "%e")  
time <- format(now, "%H")

print(  
 glue("Weekday: {weekday}\n  
 Monthday: {monthday}\n  
 Time: {time}")  
)

## Weekday: Wednesday  
##   
## Monthday: 7  
##   
## Time: 11

if (monthday < 15) {  
 print("It is the beginning of the month")  
} else {  
 print("It is the end of the month")  
}

## [1] "It is the beginning of the month"

greeting <- function(name) {  
 timeofday <- ""  
   
 if (timeofday < 12) {  
 timeofday <- "morning"  
 } else if (timeofday >= 12 && timeofday < 17) {  
 timeofday <- "afternoon"  
 } else {  
 timeofday <- "evening"  
 }  
   
 result <- glue("Hello {name}, good {timeofday}!")  
 return(result)  
}

say.hello <- greeting("Michael")  
say.hello

## Hello Michael, good morning!

## 2. switch

math.sign <- function(num1, num2, x) {  
 operator <- ""  
 calculation <- 0  
 switch (x,  
 "+" = {  
 operator <- "addition"  
 calculation <- num1 + num2  
 },  
 "-" = {  
 operator <- "subtraction"  
 calculation <- num1 - num2  
 },  
 "/" = {  
 operator <- "division"  
 calculation <- num1 / num2  
 },  
 "\*" = {  
 operator <- "multiplication"  
 calculation <- num1 \* num2  
 }  
 )  
 output <- glue("The {operator} of the 2 numbers is: {calculation}")  
 return(output)  
}

print(math.sign(10, 2, "+"))

## The addition of the 2 numbers is: 12

print(math.sign(10, 2, "-"))

## The subtraction of the 2 numbers is: 8

print(math.sign(10, 2, "/"))

## The division of the 2 numbers is: 5

print(math.sign(10, 2, "\*"))

## The multiplication of the 2 numbers is: 20

## 3. ifelse

daysofweek <- c("Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday")

for (i in daysofweek) {  
 if (i == "Sunday" || i == "Saturday") {  
 print(glue("It's {i}. Yay it's the weekend!"))  
 } else {  
 print(glue("It's {i}. Darn, time to go to work."))  
 }  
}

## It's Sunday. Yay it's the weekend!  
## It's Monday. Darn, time to go to work.  
## It's Tuesday. Darn, time to go to work.  
## It's Wednesday. Darn, time to go to work.  
## It's Thursday. Darn, time to go to work.  
## It's Friday. Darn, time to go to work.  
## It's Saturday. Yay it's the weekend!