```
                          ┌──────────────┐
      ┌──────────────┐    │    Import     │
      │    Start      │──▶ │   random      │
      └──────────────┘    │   module      │
              │           └──────────────┘
              ▼
      ╱──────────────╲
     ╱ start_game input ╲ ◀────────────┐
     ╲                  ╱               │
      ╲────────────────╱                │
              │                         │
              ▼                         │
      ╱──────────────╲      ╱──────────────╲      ╱──────────────╲
     ╱ if start_game =  ╲──▶╱ elif start_game = ╲──▶╱     else      ╲
     ╲       q          ╱   ╲      " "         ╱   ╲               ╱
      ╲────────────────╱     ╲───────────────╱     ╲─────────────╱
              │                      │                     │
              ▼                      ▼                     ▼
      ╱──────────────╲      ╱──────────────╲      ┌──────────────┐
     ╱ print "Goodbye!" ╲   ╱ print "Invalid Input" ╲  ├──────────────┤
     ╲                  ╱   ╲                 ╱      │ guessing_game() │
      ╲────────────────╱     ╲───────────────╱       └──────────────┘
              │                                             │
              ▼                                             ▼
      ┌──────────────┐                                  (arrow down)
      │     End       │
      └──────────────┘
```

```
guessing_game()
        │
        ▼
user input for hidden
number and variable
for attempts
        │
        ▼
Print welcome
message
        │
        ▼
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ If User Input = q │──▶│ elif guess is digit() │──▶│     else     │
└──────────────┘      └──────────────┘      └──────────────┘
        │                     │                     │
        ▼                     ▼                     ▼
print "Goodbye!"      guess = int(guess)    print "Invalid Input"
                      attempts += 1
                            │
                            ▼
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ If user guess < │──▶│ elif user guess < │──▶│     else     │
│ hidden number  │     │ hidden number    │     └──────────────┘
└──────────────┘      └──────────────┘              │
        │                     │                     ▼
        ▼                     ▼            print Congrations and
print number is       print number is       number of attempts
Too Low               Too High                    │
                                                   ▼
                                                 return
```

```
import random

function guessing_game():
    secret_number = random.randint(1, 100)
    attempts = 0

    print("Welcome to the Number Guessing Game!")
    print("Please enter a number 1-100 for a surprise.")

    while True:
        user_guess = input("Take a guess: ")

        if user_guess.lower() == 'q':
            print("Thanks for playing. Goodbye!")
            return

        elif user_guess.isdigit():
            user_guess = int(user_guess)
            attempts = attempts + 1

            if user_guess < secret_number:
                print("Too low!")
            else if user_guess > secret_number:
                print("Too high!")
            else:
                print("Congratulations! You guessed it in", attempts, "attempts.")
                return
        else:
            print("Invalid input. Please enter a number or 'q' to quit.")

start_game = input("Press Enter to start the guessing game or 'q' to quit: ")

if start_game == 'q':
    print("Goodbye!")
else if start_game != ":
    print("Invalid input. Please press Enter or 'q' to quit.")
else:
    guessing_game()
```