PROGRAM AirlineTicket

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DEFINE FUNCTION has More Economy Seat (seats)
 FOR i FROM 6 TO 10
   IF seats[i] IS FALSE
     RETURN TRUE
 END FOR
 RETURN FALSE
END FUNCTION
DEFINE FUNCTION has More First Class Seat (seats)
 FOR i FROM 1 TO 5
   IF seats[i] IS FALSE
     RETURN TRUE
 END FOR
 RETURN FALSE
END FUNCTION
DEFINE FUNCTION assignEconomySeat(seats)
 FOR i FROM 6 TO 10
   IF seats[i] IS FALSE
     seats[i] = TRUE
     RETURN i
   END IF
 END FOR
 RETURN -1
```

END FUNCTION

```
DEFINE FUNCTION assignFirstClassSeat(seats)
 FOR i FROM 1 TO 5
   IF seats[i] IS FALSE
     seats[i] = TRUE
     RETURN i
   END IF
 END FOR
 RETURN -1
END FUNCTION
DEFINE FUNCTION printBoardingPass(assignedSeatNumber)
 IF assignedSeatNumber BETWEEN 1 AND 5
   PRINT "Seat Number: ", assignedSeatNumber, " First-class section"
 ELSE IF assignedSeatNumber BETWEEN 6 AND 10
   PRINT "Seat Number: ", assignedSeatNumber, " Economy section"
 END IF
END FUNCTION
DEFINE PROCEDURE main()
 DECLARE seats AS ARRAY OF 10 BOOLEANS, INITIALIZED TO FALSE
 WHILE TRUE
   IF NOT hasMoreFirstClassSeat(seats) AND NOT hasMoreEconomySeat(seats)
     PRINT "This flight is fully booked."
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PRINT "Next flight leaves in 3 hours."
  BREAK
ENDIF
PRINT "Please type 1 for First Class and Please type 2 for Economy: "
READ choice
IF choice = "1"
  IF hasMoreFirstClassSeat(seats)
   seat_number = assignFirstClassSeat(seats)
   CALL printBoardingPass(seat_number)
  ELSE
   PRINT "First-class seats are fully booked. Is economy seat OK?"
   PRINT 'Type "Y" for yes, "N" for no: '
   READ response
   IF response = "Y"
     IF hasMoreEconomySeat(seats)
       seat_number = assignEconomySeat(seats)
       CALL printBoardingPass(seat_number)
     ELSE
       PRINT "This flight is fully booked."
       PRINT "Next flight leaves in 3 hours."
     END IF
   ELSE
     PRINT "Next flight leaves in 3 hours."
```

```
END IF
 ELSE IF choice = "2"
   IF hasMoreEconomySeat(seats)
     seat_number = assignEconomySeat(seats)
     CALL printBoardingPass(seat_number)
   ELSE
     PRINT "Economy seats are fully booked. Is first-class seat OK?"
     PRINT 'Type "Y" for yes, "N" for no: '
     READ response
     IF response = "Y"
       IF hasMoreFirstClassSeat(seats)
         seat_number = assignFirstClassSeat(seats)
         CALL printBoardingPass(seat_number)
       ELSE
         PRINT "This flight is fully booked."
         PRINT "Next flight leaves in 3 hours."
       END IF
     ELSE
       PRINT "Next flight leaves in 3 hours."
     END IF
   END IF
 ENDIF
END WHILE
```

END IF

END PROCEDURE

CALL main()

END PROGRAM

```
■ avi@Avis-MacBook-Pro ~ % /usr/bin/python3 /Users/avi/Desktop/AirLineTicketSharma.py
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 6 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 7 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 8 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 9 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 10 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Economy seats are fully booked. Would you like a first-class seat instead? (Y/N): Y
Seat Number: 1 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 2 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 3 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 4 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
This flight is fully booked.
Next flight leaves in 3 hours.
Avi@Avis-MacBook-Pro ~ %
■
```

```
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 6 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 1 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 7 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 2 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 8 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 3 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 9 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 9 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 4 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 10 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
This flight is fully booked.
Next flight leaves in 3 hours.
avi@Avis-MacBook-Pro ~ %
```

```
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 1 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 6 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 2 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 7 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 8 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 3 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 8 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 9 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 10 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 4 - First-class section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 4 - First-Class and 2 for Economy: 2
Economy seats are fully booked. Would you like a first-class seat instead? (Y/N): N
Next flight leaves in 3 hours.
Please type 1 for First Class and 2 for Economy: 2
Economy seats are fully booked. Would you like a first-class seat instead? (Y/N): N
Next flight leaves in 3 hours.
Please type 1 for First Class and 2 for Economy: 1
```

```
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 1 - First-class section
Please type 1 for First Class and 2 for Economy: 11
Invalid input. Please enter 1 for First Class or 2 for Economy.
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 6 - Economy section
Please type 1 for First Class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 7 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 7 - Economy section
Please type 1 for First Class and 2 for Economy: 11
Invalid input. Please enter 1 for First Class or 2 for Economy.
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 8 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 9 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 9 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 3 - First-class and 2 for Economy: 2
Economy seats are fully booked. Would you like a first-class seat instead? (Y/N): Y
Seat Number: 4 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 4 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
This flight is fully booked.
Next flight leaves in 3 hours.
```

```
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 6 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 7 - Economy section
Please type 1 for First Class and 2 for Economy: 2
Seat Number: 8 - Economy section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 1 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 2 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 3 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 4 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
Please type 1 for First Class and 2 for Economy: 1
Seat Number: 5 - First-class section
```