```
BEGIN
#Set as class so it can be used throughout.
class Users():

    WR_Men = 9.58
    ER_Men = 9.86
    BR_Men = 9.87

    WR_Women = 10.49
    ER_Women = 10.73
    BR_Women = 10.99


    PUBLIC FUNCTION init(self):
        self.athlete_time = input OR integer 2 decimal places
        self.athlete_initials = input (alphabetical)
        self.athlete_lane_num = integer input

    PUBLIC FUNCTION add_athlete():
        while True:
            print "Please enter the time of this athlete!"
            self.athlete_time = user_input
            if self.athlete_time is to 2 decimal places:
                print "Please enter the initials for this athlete"
                self.athlete_initials = user_input
                if self.athlete_initials is alphabetical and two letters:
                    self.athlete_lane_num = user_input
                    if self.athlete_lane_num is an integer and between 1 - 8:
                        END FUNCTION
                else:
                    print "Please enter the details again as there was an error!!"
                    return add_athlete()
                    END FUNCTION

    PUBLIC ARRAY athlete_list_male[]
    PUBLIC ARRAY athlete_list_female[]

    PUBLIC FUNCTION Sort_Athlete_Time(athlete_time):
        sorted = True
        while sorted:
            sorted = False
                check each instance in athlete_time against one another
                if one instance in athlete_time is > the next one in sequential order - switch places
                once all have been sorted from lowest to highest
                    sorted = True
    END FUNCTION

    PUBLIC FUNCTION GetAthleteMale(athlete_list_male):
        return("Athlete Initials: " + self.athlete_initials "| Time: "  + self.athlete_time  "Lane Number: " + self.athlete_lane_num )

    PUBLIC FUNCTION GetAthleteFemale(athlete_list_female):
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52      return("Athlete Initials: " + self.athlete_initials "| Time: "  + self.athlete_time  "Lane Number: " + self.athlete_lane_num )
53
54  user = True
55  while user = True:
56
57      print "Welcome user - please select from the list what you would like to do"
58      print "1. Add an athlete"
59      print "2. Sort the athlete list into order, fastest to slowest"
60      print "3. Check to see if a new record has been set!"
61      print "4. View pre-existing race list (Male or Female Specific)"
62      print "5. Quit"
63
64      print "Please enter an option "
65      answer = input
66
67      if answer == "1":
68          athlete = Users():
69          athlete.add_athlete()
70          print "Are these athletes male or female? Answer M or F!"
71          MorF = input
72          if MorF = "M":
73              athlete_list_male.addto(athlete) #Adds contained data to the specified male array
74          else:
75              athlete_list_female.addto(athlete) #Adds contained data to the specified female array
76              END FUNCTION
77
78      elseif answer == "2":
79      if length of array(athlete_list_male OR athlete_list_female)  == 0:
80          print "ERROR! NO VALUES CONTAINED WITHIN EITHER ARRAYS!"
81      else:
82              Sort_Athlete_Time(athlete_list_male OR athlete_list_male)
83              END FUNCTION
84
85      elseif answer == "3":
86      print "Are the participants of this race male or female?"
87      MorF = input
88      if MorF = "M":
89           check athlete_list_male each instance in the array against the WR_Men & ER_Men & BR_Men
90           if any instance in athlete_list_male is < WR_Men or ER_Men or BR_Men then a new record has been set
91              print "A new record has been set for: " + athlete that has beaten the pre-existing record(s)
92      else:
93              check athlete_list_male each instance in the array against the WR_Women & ER_Women & BR_Women
94              if any instance in athlete_list_male is < WR_Women or ER_Women or BR_Women then a new record has been set
95                  print "A new record has been set for: " + athlete that has beaten the pre-existing record(s)
96                  END FUNCTION
97
98      elseif answer == "4":
99          if length of array(athlete_list_male OR athlete_list_female)  == 0:
100             print "ERROR! NO VALUES CONTAINED WITHIN EITHER ARRAYS!"
101         else:
102                 print "Do you want to look up the male or female athlete list?"
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103                 MorF = input
104                 if MorF = "M":
105                     for instance in athlete_list_male:
106                         print (instance.GetAthleteMale())
107                 else:
108                     for instance in athlete_list_female:
109                         print (instance.GetAthleteFemale
110                         END FUNCTION
111
112         elseif answer == "5":
113             exit application
114
115 END
116
117
118
119
120
121
122
```