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C      GAME OF HANGMAN BY DAVE AHL, DIGITAL
C      BASED ON A BASIC PROGRAM WRITTEN BY KEN AUPPERLE
C      HALF HALLOW HILLS H.S. DIX HILLS NY
C      CONVERTED TO FORTRAN 77 BY M.WIRTH, APRIL 2012
C
PROGRAM HANGMAN
CHARACTER P(12,12)
CHARACTER D(20), N(26), A*20, GUESS, B*20, ANS
INTEGER U(50)
INTEGER Q, M, I, J, W, T1, R, L
REAL RND

CHARACTER*20 DICT(50)

DATA DICT/'gum','sin','for','cry','lug','bye','fly','ugly',
M      'each','from','work','talk','with','self',
M      'pizza','thing','feign','fiend','elbow','fault',
M      'dirty','budget','spirit','quaint','maiden',
M      'escort','pickax','example','tension','quinine',
M      'kidney','replica','sleeper','triangle',
M      'kangaroo','mahogany','sergeant','sequence',
M      'moustache','dangerous','scientist','different',
M      'quiescent','magistrate','erroneously',
M      'loudspeaker','phytotoxic','matrimonial',
M      'parasympathomimetic','thigmotropism'/
WRITE (*,*) "THE GAME OF HANGMAN"
10    DO 16 I = 1,12
        DO 15 J = 1,12
            P(I,J) = " "
15        CONTINUE
16    CONTINUE
        DO 18 I = 1,20
            D(I) = "-"
18    CONTINUE
        DO 20 I = 1,26
            N(I) = " "
20    CONTINUE
        DO 25 I = 1,50
            U(I) = 0
25    CONTINUE
        DO 30 I = 1,12
            P(I,1) = "X"
30    CONTINUE
        DO 40 J = 1,7
            P(1,J) = "X"
40    CONTINUE
        P(2,7) = "X"
        C=1
        W=50
        M=0
        IF (C .LT. W) GO TO 100
        WRITE (*,*) "You did all the words"; GO TO 999
100    RND=RAND()
        Q=CEILING(RND*50)
        IF (U(Q) - 1) 120,100,120
120    U(Q) = 1; C=C+1; T1=0

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      A = DICT(Q)
      L = LEN_TRIM(A)
      WRITE (*,*) D(1:L)
170   WRITE (*,*) "Here are the letters you used: "
      DO 180 I = 1,26
          IF (N(I) .EQ. ' ') GO TO 200
          WRITE (*,'(AA$)') N(I),", "
180   CONTINUE

200   WRITE (*,*) " "
      WRITE (*,*) "What is your guess? "; R=0
      READ (*,*) GUESS
      DO 210 I = 1,26
          IF (N(I) .EQ. " ") GO TO 250
          IF (ICHAR(N(I)) - ICHAR(GUESS)) 210,205,210
205   WRITE (*,*) "You guessed that letter before";
          GO TO 170
210   CONTINUE
      WRITE (*,*) "Invalid character"; GO TO 170
250   N(I)=GUESS; T1=T1+1
      DO 260 I = 1,L
          IF (A(I:I) .EQ. GUESS) THEN
              D(I) = GUESS; R=R+1
          END IF
260   CONTINUE
270   IF (R .EQ. 0) THEN
          GO TO 290
      ELSE
          GO TO 300
      END IF
290   M=M+1; GO TO 400
300   DO 305 I = 1,L
          IF (ICHAR(D(I)) - ICHAR("-")) 305,320,305
305   CONTINUE
      GO TO 390
320   WRITE (*,*) D(1:L)
330   WRITE (*,*) "What is your guess for the word? "
      READ (*,*) B
340   IF (A .EQ. B) GO TO 360
      WRITE (*,*) "Wrong. Try another letter"; GO TO 170
360   WRITE (*,*) "Right! It took you ",T1," guesses"
370   WRITE (*,*) "Do you want another word? (Y/N) "
      READ (*,*) ANS
      IF (ICHAR(ANS) - ICHAR("Y")) 380,10,380
380   WRITE (*,*) "It's been fun! Bye for now."; GO TO 999
390   WRITE (*,*) "You found the word."; GO TO 370
400   WRITE (*,*) "Sorry, that letter isn't in the word."
410   GO TO (415,420,425,430,435,440,445,450,455,460), M
415   WRITE (*,*) "First we draw a head."; GO TO 470
420   WRITE (*,*) "Now we draw a body."; GO TO 470
425   WRITE (*,*) "Next we draw an arm."; GO TO 470
430   WRITE (*,*) "This time it's the other arm."; GO TO 470
435   WRITE (*,*) "Now, let's draw the right leg."; GO TO 470
440   WRITE (*,*) "This time we draw the left leg."; GO TO 470
445   WRITE (*,*) "Now we put up a hand."; GO TO 470
450   WRITE (*,*) "Next the other hand."; GO TO 470
455   WRITE (*,*) "Now we draw one foot."; GO TO 470

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460  WRITE (*,*) "Here's the other foot -- You're hung!!."
470  GO TO (480,490,500,510,520,530,540,550,560,570), M
480  P(3,6) = "-"; P(3,7) = "-"; P(3,8) = "-"; P(4,5) = "(";
    P(4,6) = ".";
481  P(4,8) = "."; P(4,9) = ")"; P(5,6) = "-"; P(5,7) = "-";
    P(5,8) = "-"; GO TO 580
490  DO 495 I = 6,9
        P(I,7) = "X"
495  CONTINUE
    GO TO 580
500  DO 505 I = 4,7
        P(I,I-1) = "\"
505  CONTINUE
    GO TO 580
510  P(4,11) = "/"; P(5,10) = "/"; P(6,9) = "/"; P(7,8) = "/";
    GO TO 580
520  P(10,6) = "/"; P(11,5) = "/"; GO TO 580
530  P(10,8) = "\"; P(11,9) = "\"; GO TO 580
540  P(3,11) = "\"; GO TO 580
550  P(3,3) = "/"; GO TO 580
560  P(12,10) = "\"; P(12,11) = "-"; GO TO 580
570  P(12,3) = "-"; P(12,4) = "/"
580  DO 585 I = 1,12
        WRITE (*,*) (P(I,J),J=1,12)
585  CONTINUE
590  IF (M - 10) 170,600,170
600  WRITE (*,*) "Sorry, you loose. The word was ", A
610  WRITE (*,*) "You missed that one."; GO TO 370

999  WRITE (*,*) "Ending..."
    END
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