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% This is a PROMISE Software Engineering Repository data set made publicly

% available in order to encourage repeatable, verifiable, refutable, and/or

% improvable predictive models of software engineering.

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% If you publish material based on PROMISE data sets then, please

% follow the acknowledgment guidelines posted on the PROMISE repository

% web page http://promise.site.uottawa.ca/SERepository .

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@relation desharnais.csv

% Domain: software cost estimation

% Donor: Martin Shepperd <Martin.Shepperd@brunel.ac.uk

% Notes: 4 incomplete projects (projects 38,44,66,75) so often people use the 77 complete cases.

% The original source is [1].

% Our paper [2] provides a basic overview of the data set.

% References:

% [1] J. M. Desharnais, "Analyse statistique de la

% productivitie des projets informatique a partie de la

% technique des point des foncti\ on," University of Montreal,

% Masters Thesis, 1989.

%

% [2] M. J. Shepperd and C. Schofield, "Estimating software

% project effort using analogies," IEEE Transactions on

% Software Engineering,\ vol. 23, pp. 736-743, 1997.

% Attributes:

@attribute Project numeric % proj if

@attribute TeamExp numeric % measured in years

@attribute ManagerExp numeric % measured in years

@attribute YearEnd numeric

@attribute Length numeric

@attribute Effort numeric % ActualEffort is measured in person-hours

@attribute Transactions numeric % Transactions is a count of basic logical transactions in the system

@attribute Entities numeric % Entities is the number of entities in the systems data model

@attribute PointsAdjust numeric

@attribute Envergure numeric

@attribute PointsNonAjust numeric

@attribute Language {1,2,3}

%

% Sample run (WEKA):

% === Run information ===

%

% Scheme: weka.classifiers.functions.LinearRegression -S 0 -R 1.0E-8

% Relation: martin.csv

% Instances: 81

% Attributes: 12

% Project

% TeamExp

% ManagerExp

% YearEnd

% Length

% Effort

% Transactions

% Entities

% PointsAdjust

% Envergure

% PointsNonAjust

% Langage

% Test mode: 10-fold cross-validation

%

% === Classifier model (full training set) ===

%

% Linear Regression Model

%

% Effort =

% -433.25 \* TeamExp +

% 408.8057 \* ManagerExp +

% 201.2701 \* Length +

% 4.2361 \* Transactions +

% 7.9056 \* Entities +

% 4.4594 \* PointsAdjust +

% 92.1389 \* Envergure +

% -1777.4579 \* Langage +

% -278.0786

%

% Time taken to build model: 0.02 seconds

%

% === Cross-validation ===

% === Summary ===

%

% Correlation coefficient 0.7303

% Mean absolute error 2082.1182

% Root mean squared error 3007.0504

% Relative absolute error 64.9965 %

% Root relative squared error 67.3788 %

% Total Number of Instances 81

@data

1,1,4,85,12,5152,253,52,305,34,302,1

2,0,0,86,4,5635,197,124,321,33,315,1

3,4,4,85,1,805,40,60,100,18,83,1

4,0,0,86,5,3829,200,119,319,30,303,1

5,0,0,86,4,2149,140,94,234,24,208,1

6,0,0,86,4,2821,97,89,186,38,192,1

7,2,1,85,9,2569,119,42,161,25,145,2

8,1,2,83,13,3913,186,52,238,25,214,1

9,3,1,85,12,7854,172,88,260,30,247,1

10,3,4,83,4,2422,78,38,116,24,103,1

11,4,1,84,21,4067,167,99,266,24,237,1

12,2,1,84,17,9051,146,112,258,40,271,1

13,1,1,84,3,2282,33,72,105,19,88,1

14,3,4,85,8,4172,162,61,223,32,216,1

15,4,4,85,9,4977,223,121,344,28,320,1

16,3,2,85,8,1617,119,48,167,26,152,2

17,4,3,85,8,3192,57,43,100,43,108,1

18,4,4,86,14,3437,68,316,384,20,326,2

19,3,4,87,14,4494,9,386,395,21,340,2

20,4,2,86,5,840,58,34,92,29,86,1

21,4,4,86,12,14973,318,269,587,34,581,2

22,2,4,85,18,5180,88,170,258,34,255,1

23,2,4,86,5,5775,306,132,438,37,447,1

24,4,1,87,20,10577,304,78,382,39,397,1

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32,1,1,86,9,710,145,38,183,27,168,3

33,4,4,87,9,2429,174,78,252,41,267,3

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35,2,2,88,3,651,126,49,175,38,180,3

36,1,3,86,17,9135,137,119,256,34,253,2

37,2,4,87,11,1435,289,88,377,28,351,3

38,?,?,87,8,5922,260,144,404,24,360,1

39,1,4,88,4,847,158,59,217,18,180,3

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42,2,4,87,34,2352,661,132,793,23,698,3

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44,?,4,86,39,19894,284,230,514,50,591,1

45,2,1,86,18,6699,182,126,308,35,308,1

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47,2,2,88,9,4004,252,7,259,28,241,1

48,4,3,85,11,12824,131,180,311,51,361,1

49,2,3,85,8,2331,106,39,145,6,103,1

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54,1,1,87,12,2583,61,96,157,18,130,1

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56,3,7,86,13,8232,45,387,432,16,350,2

57,1,1,86,12,3276,55,112,167,12,129,2

58,1,4,87,8,2723,124,52,176,14,139,2

59,3,3,87,5,3472,120,126,246,15,197,2

60,1,2,87,6,1575,47,32,79,14,62,2

61,1,1,86,12,2926,126,107,233,23,205,2

62,3,2,86,6,1876,101,45,146,15,117,2

63,1,1,86,5,2520,78,99,177,14,140,1

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66,2,?,87,10,6783,224,110,334,28,311,2

67,2,4,87,15,11361,323,184,507,35,507,2

68,1,3,86,10,1267,42,31,73,27,67,2

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75,0,?,84,22,3941,139,143,282,22,245,2

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77,4,4,85,12,1400,229,169,398,39,414,3

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79,4,4,86,24,9520,395,193,588,40,617,1

80,4,3,86,12,5880,469,176,645,43,697,3

81,4,4,85,36,23940,886,241,1127,34,1116,1