

Project3 Specifications: Depreciation to a Salvage Value of 0.

For tax purposes an item may be depreciated over a period of several years, n . With the straight-line method of depreciation, each year the item depreciates by $1/n$ th of its original value. With the double-declining-balance method of depreciation, each year the item depreciates by $2/n$ ths of its value at the beginning of that year. (In the final year it is depreciated by its value at the beginning of the year.) Write a program that performs the following tasks:

(A) Request a description of the item, the year purchased, the cost of the item, the number of years to be depreciated (estimated life), and the method of depreciation. The method of depreciation should be chosen by clicking on one of two buttons.

(B) Validate all the data and produce the following error messages:

"Must enter a Description."
"Year Purchased is not numeric."
"Year Purchased is not between 1900 and 9999"
"Purchase Amount is not numeric."
"Purchase Amount must be > zero."
"Years to Depreciate is not numeric."
"Number of years must be between 1 and 999."

(C) Displays the year-by-year depreciation similar to examples below.

(D) The Restart button will reset program to accept new data.

Points:	Earned	(Max)
1) Every procedure has a comment	_____	(2)
2) Block comment at beginning of Class Form	_____	(1)
3) All objects follow the naming convention	_____	(2)
4) Form(s) constructed correctly (Appearance only)	_____	(1)
5) Program validates text input. Error messages are:	_____	(5)
"Must enter a Description."		
"Year Purchased is not numeric."		
"Year Purchased is not between 1900 and 9999"		
"Purchase Amount is not numeric."		
"Purchase Amount must be > zero."		
"Years to Depreciate is not numeric."		
"Number of years must be between 1 and 999."		
6) Program correctly calculates the amounts	_____	(3)
7) Program uses Iteration correctly	_____	(3)
8) Program uses at least 2 procedure or functions	_____	(3)
TOTAL	_____	(20)

Shown at Start up or after Restart button clicked:

The dialog box is titled "Project3: Depreciation to a Salvage Value of Zero". It contains the following fields and controls:

- Description:** A text box with the placeholder text "<Enter Item Description>".
- Year Purchased:** A text box with the placeholder text "<Enter Year Purchased>".
- Purchase Amount:** A text box with the placeholder text "<Enter Amount>".
- Years to Depreciate Over:** A text box with the placeholder text "<Enter Number of Years>".
- Select a Depreciation Method:** A group box containing two radio buttons:
 - ☒ Straight-line Method (1/n)
 - ☐ Double-declining Method (2/n)
- Buttons:** Three buttons at the bottom: "Show Calculation", "ReStart", and "Close".

Shown with data prior to clicking "Show Calculation" (Note: Straight-line is elected)

The dialog box is titled "Project3: Depreciation to a Salvage Value of Zero". It contains the following fields and controls:

- Description:** A text box containing the text "Car".
- Year Purchased:** A text box containing the text "2000".
- Purchase Amount:** A text box containing the text "20000".
- Years to Depreciate Over:** A text box containing the text "5".
- Select a Depreciation Method:** A group box containing two radio buttons:
 - ☒ Straight-line Method (1/n)
 - ☐ Double-declining Method (2/n)
- Buttons:** Three buttons at the bottom: "Show Calculation", "ReStart", and "Close".

New form is displayed to show depreciation. (This could be shown on original form without losing any points)

The screenshot shows a window titled "Depreciation Schedule". It contains the following text:

Date/Time of Report : 8/22/2017 11:27:40 AM

Description : Car

Year of purchase : 2000

Cost : \$20,000.00

Estimated Life : 5

Method of depreciation: straight-line-balance

Year	Value at beg of Yr	Amount Deprec During Year	Total Depreciation to End of Year
2000	\$20,000.00	\$4,000.00	\$4,000.00
2001	\$16,000.00	\$4,000.00	\$8,000.00
2002	\$12,000.00	\$4,000.00	\$12,000.00
2003	\$8,000.00	\$4,000.00	\$16,000.00
2004	\$4,000.00	\$4,000.00	\$20,000.00

At the bottom of the window is a "Close" button.

Using the same data, selecting double-declining-balance and hitting Show Calculate displays this form:

The screenshot shows a window titled "Depreciation Schedule". It contains the following text:

Date/Time of Report : 8/22/2017 11:29:22 AM

Description : Car

Year of purchase : 2000

Cost : \$20,000.00

Estimated Life : 5

Method of depreciation: double-declining-balance

Year	Value at beg of Yr	Amount Deprec During Year	Total Depreciation to End of Year
2000	\$20,000.00	\$8,000.00	\$8,000.00
2001	\$12,000.00	\$4,800.00	\$12,800.00
2002	\$7,200.00	\$2,880.00	\$15,680.00
2003	\$4,320.00	\$1,728.00	\$17,408.00
2004	\$2,592.00	\$2,592.00	\$20,000.00

At the bottom of the window is a "Close" button.