

Naveena Varna

Retirement Planning Calculator

Graphical User Interface Design

Contents

Introduction:	3
Personal Calculator:	4
User Input form:	5
Result:	6
What-If functionality:	6
Print Button functionality:	7
Professional Calculator:	8
User Input form:	9
Info Icon functionality:	10
Reset and Calculate Buttons:	10
Result:	11
Info Icon functionality in the Result:	12
What-If functionality:	15
Print Button functionality:	16

Retirement Planning Calculator

Introduction:

The goal of the project is to create an application that allows the user to easily access the application and to get a better understandable result. I designed two application for two different sets of groups.

- Personal Calculator for personal use
- Professional Calculator for financial advisors

Usability Attributes

Some of the features that I thought would be helpful for the user are:

- **Drop downs:** This helps the user to easily pick the right values from the drop down instead of typing it.
- **Auto calculation:** For some of the fields, I auto populated the values based on user input values. Though it is auto populated the user can still change the values if needed.
- **Info Icons:** An Info icon is added on the top right corner for some of the fields, I thought this would be useful for the user if the user does not know that values to provide in the field, this is more like an informational icon. The user can click on the icon to see the additional information.
- **Mandatory fields:** As there are multiple fields in the form, I thought it would be useful to indicate which fields are required to see the result, this would help the user to correctly input the values before clicking the calculate button.

One of the design decisions that I thought would be helpful is having the form and the result on the same page, that way the user can input the values and can quickly find out the results, also having the info icon on the right corner is one other thing that I thought would be useful.

Personal Calculator:

Below is the overview of the Personal Calculator application. The left side of the application is the user input form and the right side is the result that gets generated based on the user values.

The screenshot displays a web application for calculating retirement savings needs. The interface is split into two main sections: a form for user input on the left and a results panel on the right.

User Input Form (Left Side):

- Select your gender ***: Female (dropdown)
- Select your current age ***: 24 (dropdown)
- Select planned retirement age ***: Retiring at 60 (dropdown)
- Select expected age of death ***: Age 82 (dropdown)
- Enter current annual salary/wage ***: 75000 (text input)
- How much % of your current annual income will you want in retirement? ***: 71 (text input)
- Social Security ***: 14500 (text input)
- Traditional Employer Pension**: 2000 (text input)
- Part-time income**: 2500 (text input)
- Other (reverse annuity mortgage payments, earnings on assets, etc.)**: 1200 (text input)
- Enter your savings to date (include money accumulated in a 401(k), IRA, or similar retirement plan) ***: 5678 (text input)

Buttons at the bottom: **Reset Form** and **Calculate**.

Result: My Retirement Savings Plan (Right Side):

- Total additional savings needed at retirement :** 743988.10
- The ANNUAL amount you'll need to save is :** 11903.81

Buttons at the bottom of the results panel: **What If** and **Print**.

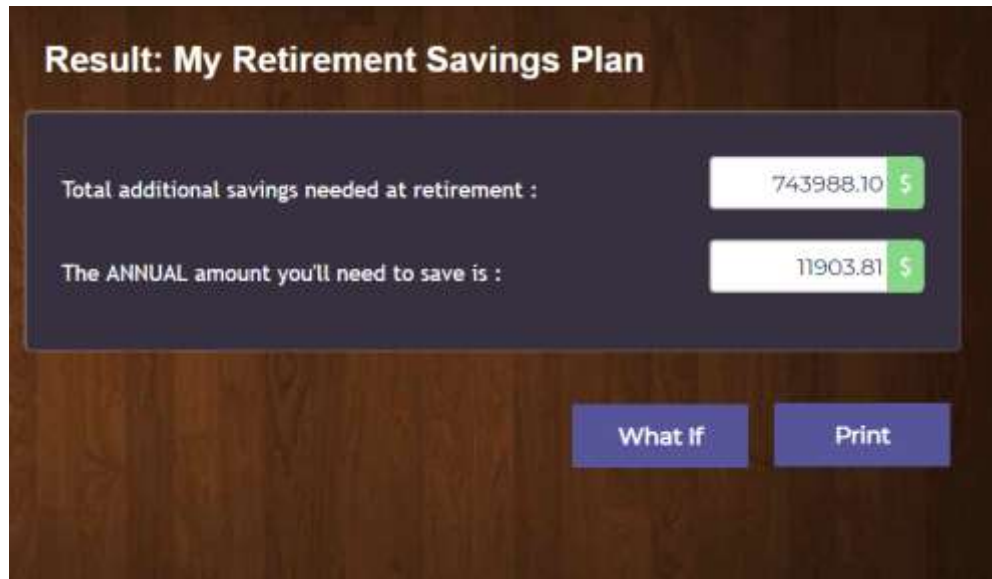
User Input form:

In the below form, the user can select and enter the values. For some of the fields, I created a drop down so that the user can easily select from the list and for some of the fields like Social Security I created a functionality so that it gets auto populated when the user enters the annual salary. Though its auto populated the user can still change the value if needed.

Select your gender *	Select your current age *
<input type="text" value="Female"/>	<input type="text" value="24"/>
Select planned retirement age *	Select expected age of death *
<input type="text" value="Retiring at 60"/>	<input type="text" value="Age 92"/>
Enter current annual salary/wage *	How much % of your current annual income will you want in retirement? *
<input type="text" value="75000"/> \$	<input type="text" value="71"/> %
Social Security *	Traditional Employer Pension
<input type="text" value="14500"/> \$	<input type="text" value="2000"/> \$
Part-time income	Other (reverse annuity mortgage payments, earnings on assets, etc.)
<input type="text" value="2500"/> \$	<input type="text" value="1200"/> \$
Enter your savings to date (include money accumulated in a 401(k), IRA, or similar retirement plan) *	
<input type="text" value="5678"/> \$	
<input type="button" value="Reset Form"/>	<input type="button" value="Calculate"/>

Result:

On the right side of the application, we have the result, the values in the fields are non editable and are populated based on user input values.



The screenshot displays a web application interface with a dark wood-grain background. At the top, a title 'Result: My Retirement Savings Plan' is shown in white text. Below this, a dark blue rectangular box contains two rows of text and corresponding numerical values. The first row reads 'Total additional savings needed at retirement :' followed by the value '743988.10' and a green '\$' symbol. The second row reads 'The ANNUAL amount you'll need to save is :' followed by the value '11903.81' and a green '\$' symbol. At the bottom of the interface, there are two blue buttons with white text: 'What If' and 'Print'.

Label	Value	Unit
Total additional savings needed at retirement :	743988.10	\$
The ANNUAL amount you'll need to save is :	11903.81	\$

What-If functionality:

I added functionality for “What-if” button, a pop up is displayed when the user clicks the “What-if” button, the user can quickly change one/more values and click “OK” button, the application would calculate the new values based on the changes and populated the result fields. The Application would take the user on the same page as they started with. This way the use can easily change the values without resetting the input form values.

Try different scenarios

Select planned retirement age
Retiring at 60

Select expected age of death
Age 92

How much % of your current annual income will you want in retirement?
7%

Enter your savings to date
(include money accumulated in a 401(k), IRA, or similar retirement plan)
\$678

OK CANCEL

Retirement Savings Plan

Retirement : 743988.00

Save is : 15903.81

What If Print

Print Button functionality:

When the user clicks on the “Print” button, the application would pop up a new window and allows the user to print the form.

Print

Total: 1 sheet of paper

Print Cancel

Destination: Wondershare PDFElement

Pages: All

Copies: 1

Layout: Portrait

Color: Color

More settings

Print using system dialog... (Ctrl+Shift+P)

Retirement Savings Plan Summary

Current Age: 60 yrs	Current Age: 92 yrs
Your planned retirement age: 60 yrs	Your life expectancy: 92 yrs
Current annual salary/wage: \$75000	% of current annual income you will want in retirement: 7%
The income you expect to receive annually from:	
Social Security: \$19500	Traditional Employer Pension: \$22000
Part-time income: \$2000	Other income: \$1100
Your savings to date (include money accumulated in a 401(k), IRA, or similar retirement plan): \$678	
Result based on your inputs:	
Total additional savings needed at retirement:	\$743988.00
The ANNUAL amount you'll need to save:	\$15903.81

Professional Calculator:

As the professional calculator is designed for the financial advisors, there are few additional fields that are added to the input form and result. Also, an info icon is added for some of the fields to help the financial advisors to understand how the values are calculated, in some cases the info icon is added as addition information.

File | C:/Users/naveen/OneDrive/Desktop/CIS%20623/project1-final%20calculator/naveena/professional.html

Your First Name *
naveena

Your Last Name (Optional)
varma

Select your gender *
Female

Select your current age *
25

Select planned retirement age *
Retiring at 60

Select expected age of death *
Age 92

Enter current annual salary/wage *
85000

How much % of your current annual income will you want in retirement? *
70

Social Security *
14500

Traditional Employer Pension
3000

Part-time income
1800

Other (reverse annuity mortgage payments, earnings on assets, etc.)
2600

Enter your savings to date
(include money accumulated in a 401(k), IRA, or similar retirement plan) *
5500

1) The annual income you will want in retirement : 89500.00

2) Income you expect to receive annually from various sources (Social security etc.) : 29900.00

3) The amount you need to make up for each retirement year is : 37600.00

4) The amount you'll need to save is : 855718.00

5) Your savings to date multiplied by the factor is : 15400.00

6) Total additional savings needed at retirement : 839718.00

7) The ANNUAL amount you'll need to save is : 13435.49

What If

Print

User Input form:

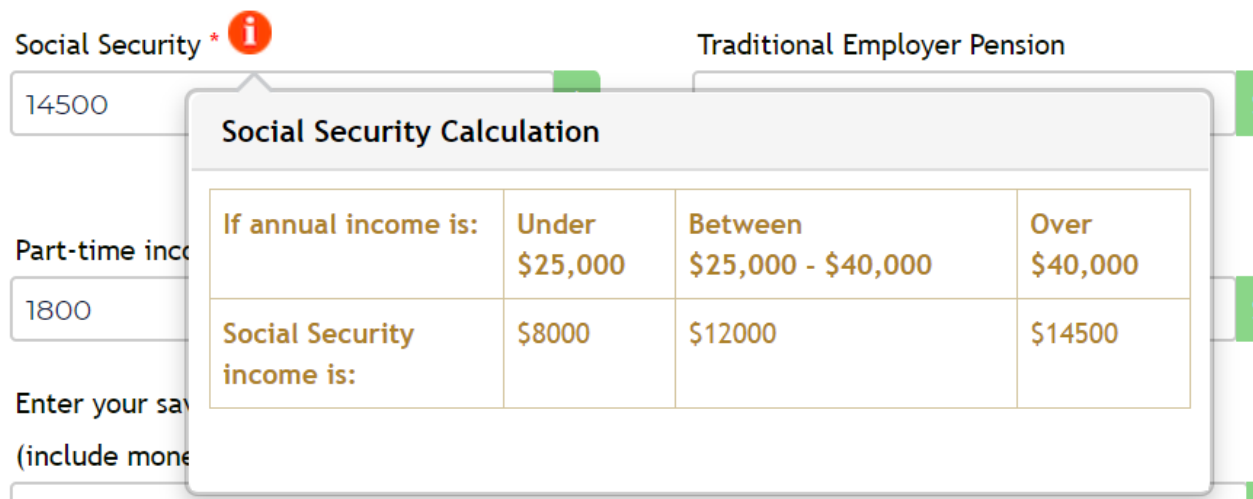
← → ↻ ⓘ File | C:/Users/navee/OneDrive/Desktop/CIS%20623/project1-final%20calculator/naveena


RETIREMENT PLANNING CALCULATOR

Your First Name *	Your Last Name (Optional)
<input type="text" value="naveena"/>	<input type="text" value="varna"/>
Select your gender *	Select your current age *
<input type="text" value="Female"/>	<input type="text" value="25"/>
Select planned retirement age *	Select expected age of death *
<input type="text" value="Retiring at 60"/>	<input type="text" value="Age 92"/>
Enter current annual salary/wage *	How much % of your current annual income will you want in retirement? *
<input type="text" value="85000"/> \$	<input type="text" value="70"/> %
Social Security * ⓘ	Traditional Employer Pension
<input type="text" value="14500"/> \$	<input type="text" value="3000"/> \$
Part-time income	Other (reverse annuity mortgage payments, earnings on assets, etc.)
<input type="text" value="1800"/> \$	<input type="text" value="2600"/> \$

Info Icon functionality:

The info Icon on the top right corner of the fields would provide additional information, the user can click on the icon to see the info and when the user clicks on any place of the application the info message disappears.



Social Security * 

14500

Traditional Employer Pension

Part-time income

1800

Enter your savings to date
(include money accumulated in a 401(k), IRA, or similar retirement plan) *

If annual income is:	Under \$25,000	Between \$25,000 - \$40,000	Over \$40,000
Social Security income is:	\$8000	\$12000	\$14500

Reset and Calculate Buttons:

A “Reset Form” button is provided on the bottom left side of the form, this allows the user to clear out the input values. “Calculate” button is provided in the form so that the user can provide the input values and upon clicking the button the application calculates and populates the value in the result fields.

Enter your savings to date
(include money accumulated in a 401(k), IRA, or similar retirement plan) *







5500 \$

Reset Form Calculate

Result:

As the application is designed for the financial advisors, there are additional fields added in the result section, each of the fields have info icon so that the user can understand how the values are populated.


Result: Retirement savings plan for naveena varna


1) The annual income you will want in retirement : 	59500.00 \$
2) Income you expect to receive annually from various sources (Social security etc.) : 	21900.00 \$
3) The amount you need to make up for each retirement year is : 	37600.00 \$
4) The amount you'll need to save is : 	855118.00 \$
5) Your savings to date multiplied by the factor is : 	15400.00 \$
6) Total additional savings needed at retirement : 	839718.00 \$
7) The ANNUAL amount you'll need to save is : 	13435.49 \$


[What If](#) [Print](#)


Info Icon functionality in the Result:

Result: Retirement savings plan for naveena varna

1) The annual income you will want in retirement :  \$


2) Income you expect to receive annually from various sources (Social security etc.) : 


3) The amount you need to make up for each retirement year is : 


4) The amount you'll need to save is : 


Calculation Information

This income is the expected percentage value of the current annual salary/wage.

2) Income you expect to receive annually from various sources (Social security etc.) :  \$

3) The amount you need to make up for each retirement year is : 

4) The amount you'll need to save is : 

5) Your savings to date multiplied by the interest rate is : 

Calculation Information

This income is calculated by adding the Social Security, Traditional Employer Pension, Part-time income, and Other (reverse annuity mortgage payments, earnings on assets, etc.).

3) The amount you need to make up for each retirement year is :

37600.00 \$

4) The **Calculation Information**

855118.00 \$

5) You **This amount is calculated by subtracting the expected income (Step 2) from the annual income (Step 1)**

15400.00 \$

6) Tot

839718.00 \$

4) The amount you'll need to save is :

855118.00 \$

5) Y **To determine the amount you'll need to save, multiply the amount you need to make up by the factor below:**

6) T	Choose your factor based on life expectancy	55 yrs	60 yrs	65 yrs	70 yrs
7) T	Male, 50th percentile (age 82)	18.79	16.31	13.45	10.15
	Female, 50th percentile (age 86)	20.53	18.32	15.77	12.83
	Male, 75th percentile (age 89)	21.71	19.68	17.35	14.65
	Female, 75th percentile (age 92)	22.79	20.93	18.79	16.31
	Male, 90th percentile (age 94)	23.46	21.71	19.68	17.35
	Female, 90th percentile (age 97)	24.40	22.79	20.93	18.79

5) Your savings to date multiplied by the factor is :

15400.00 \$

6) Total additional

Multiply your savings to date by the factor below:

If you plan to retire in:	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs
Your factor is:	1.3	1.6	1.8	2.1	2.4	2.8	3.3

7) The ANNUAL a

6) Total additional savings needed at retirement :

839718.00 \$

7) The ANNUAL

Calculation Information

This amount is calculated by subtracting the total savings to date (Step 5) from the total amount need to be saved (Step 4).

7) The ANNUAL amount you'll need to save is :

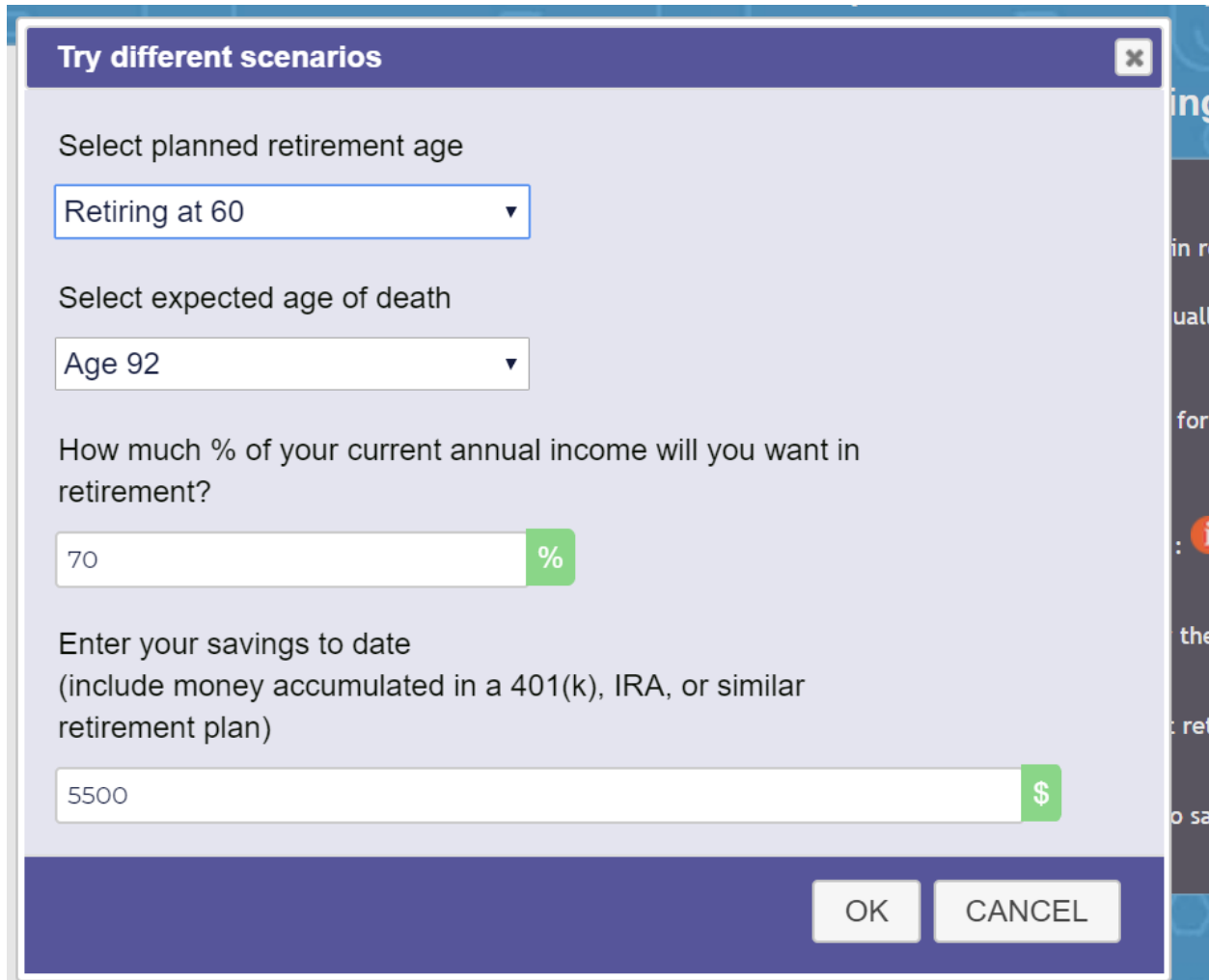
13435.49 \$

To determine the ANNUAL amount you'll need to save, multiply the TOTAL amount by the factor below:

If you plan to retire in:	10 yrs	15 yrs	20 yrs	25 yrs	30 yrs	35 yrs	40 yrs
Your factor is:	0.085	0.052	0.036	0.027	0.020	0.016	0.013

What-If functionality:

When the user clicks on the “What-If” button, a pop-up is displayed, the user can change one/ more values, upon clicking ‘OK’ button the application would re-generate the result values and takes the user to the same page.



Try different scenarios [X]

Select planned retirement age

Retiring at 60 ▼

Select expected age of death

Age 92 ▼

How much % of your current annual income will you want in retirement?

70 %

Enter your savings to date
(include money accumulated in a 401(k), IRA, or similar retirement plan)

5500 \$

OK CANCEL

Print Button functionality:

“Print” button option is provided for the user to print the input and result values.

Print

Total: 1 sheet of paper

Print

Cancel

Destination

Wondershare PDFelement

Pages

All

Copies

1

Layout

Portrait

Color

Color

More settings

Print using system dialog... (Ctrl+Shift+P)

Retirement Savings Plan

Retirement Savings Plan Summary

First Name: John	Last Name: Smith
Gender: Female	Current Age: 28 Yrs
Your planned retirement age: 62 Yrs	Your life expectancy: 92 Yrs
Current annual salary/wage: \$10000	% of current annual income you will want to retirement: 7%
	Social Security: \$14000
The income you expect to receive annually from:	Traditional Employer Pension: \$2000
	Part-time Income: \$1800
	Other income: \$2400
Your savings to date include money accumulated in a 401(k), IRA, or similar retirement plan:	\$7500

Result based on your inputs:

The annual income you will want to retirement:	\$14000.00
Income you expect to receive annually from various sources (Social security etc.):	\$21800.00
The amount you need to make up for each retirement year:	\$17600.00
The amount you'll need to save is:	382219.00
Your savings to date multiplied by the factor:	\$10480.00
Total additional savings needed at retirement:	\$371739.00
The APR(%) amount you'll need to save:	\$11000.00