



PROJECT REPORT

9 MONTHS APP

Prepared By:

Refal Najmi 2006271

May Alqurashi 2008060

Raghad Althyabi 2006386

Shereen Anwar 1905449

Prepared For:


Dr. Amal Naseem





Table of Contents

01	<i>The role of each student in the project.</i>	p 03
02	<i>Project Definition</i>	p 04
03	<i>Project Description</i>	p 05
04	<i>Project Description</i>	p 06
05	<i>Output</i>	p 07
06	<i>Output</i>	p 08
07	<i>Output</i>	p 09
08	<i>Output</i>	p 10



The role of each student in the project.

Student Name	Student ID	Student Role
Refal Ibrahim Najmi	2006271	<ul style="list-style-type: none">• Part of Coding.• Project Report (Design, Project definition).
May Omar Alqurashi	2008060	<ul style="list-style-type: none">• Part of coding.• Project Report (Description, Project definition).• Code Checking and Validating
Raghad Mohammed Althyabi	2006386	<ul style="list-style-type: none">• Part of Coding.• Code Testing and Evaluating
Shereen Anwar Zakariya	1905449	<ul style="list-style-type: none">• Part of coding.• Code Testing and Evaluating

PROJECT DEFINITION

Our project is centered around taking care of pregnant women. It helps the pregnant woman to gain needed information in her pregnancy journey, especially for primigravida (first-timers)

by following the developments of the mother and fetus on a weekly and monthly basis including the normal weight of the fetus and mother calculations, the duration of the mother's pregnancy and the remainder of the pregnancy period.

PROJECT DESCRIPTION

The application first asks the pregnant woman for some needed personal information.

The system next will display an option menu to choose the desired option that she needs to know more about. We did that by creating a loop, inside the loop, we displayed the options menu that provides these options that she can choose from 1-5 numbers:

Enter your option from 1-5:

\n0- 10 Tips for a Healthy Pregnancy

\n1 - Calculate expected birth date

\n2 - Calculate body mass

\n3 - Check mother's weight status

\n4 - Check baby's weight

\n5 - Exit

\nYour option is : ".

Then, we started to make conditions about if she entered a specific number number, the system would jump to a specific place. We used that by using the beq instruction. After jumping to another place, we made the j Loop instruction to make the system go back to the loop so she can enter another option from the list.

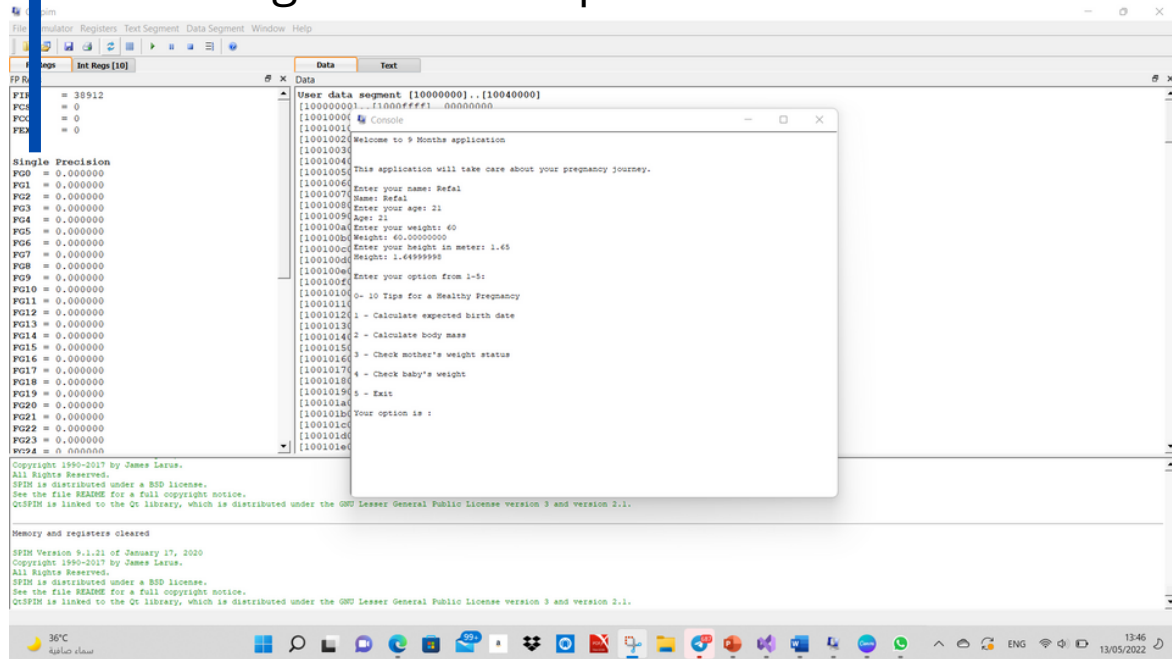
PROJECT DESCRIPTION

We also added arithmetic instructions like calculating the expected birth date, and calculating the the body mass, which we did in float because it includes division and may contain decimals.

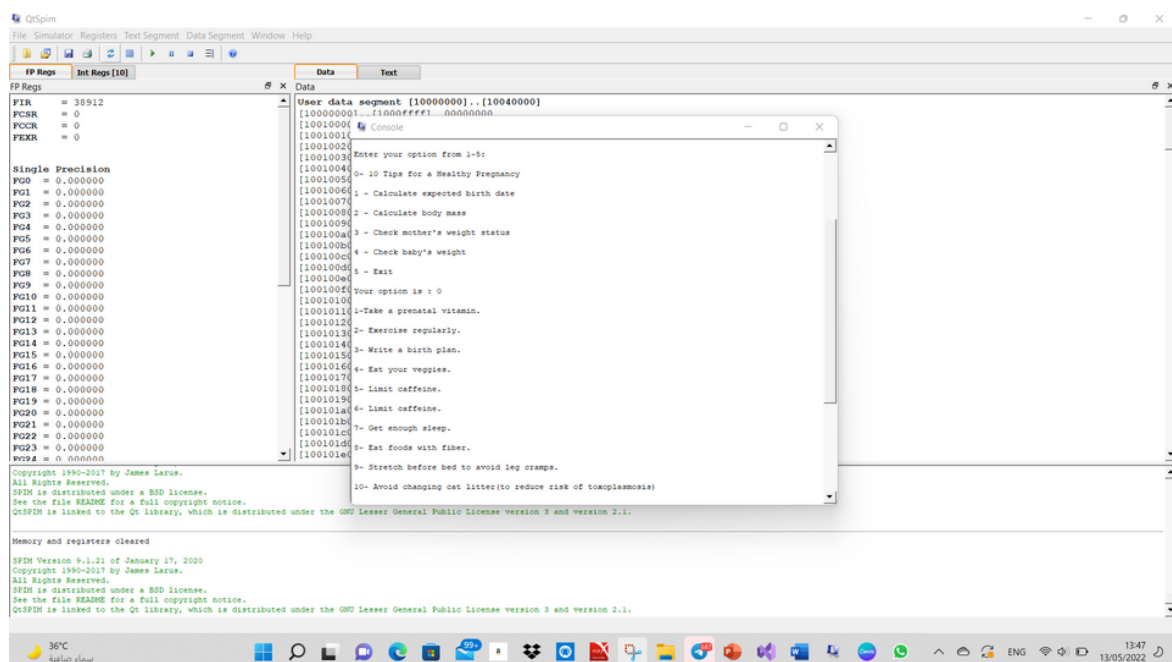
We added checking the mother's weight status that has the comparison instruction in float (c.lt.s) (since her weight can contain decimals). This instruction compares her body mass with the "overweight body mass" and it will print "your body mass indicates a normal weight" if it was under 29.9 (which is the overweight body mass), and it will print "your body mass indicates that you are overweight" if her body mass was over 29.9. We used both bc1t and bc1f to branch as required. Then back to the loop.

We also added checking baby's weight based on the month she is in. We put the baby's normal weights from the first month to the ninth month in an array from one to nine. Then we asked the pregnant woman to enter what month she is in. Based on her input, we compared her input with the array indices. We loaded the compatible array value, stored it ,and printed it. Then back to the loop. Last but not least, she can exit the system by pressing the option 5.

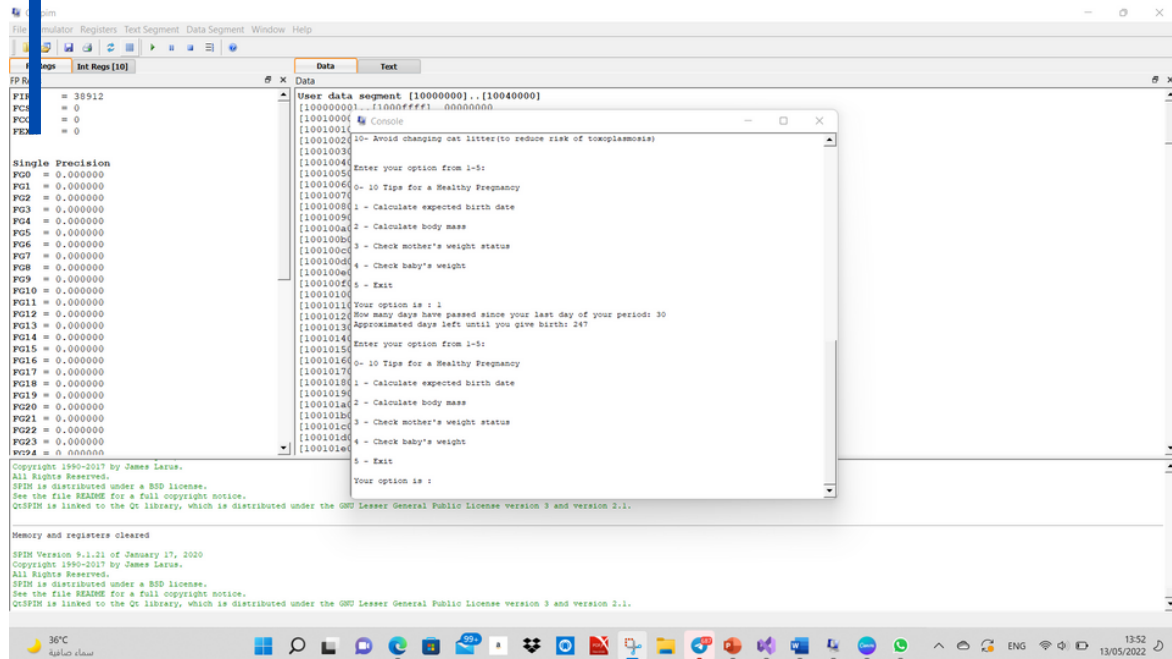
Entering the needed personal information.



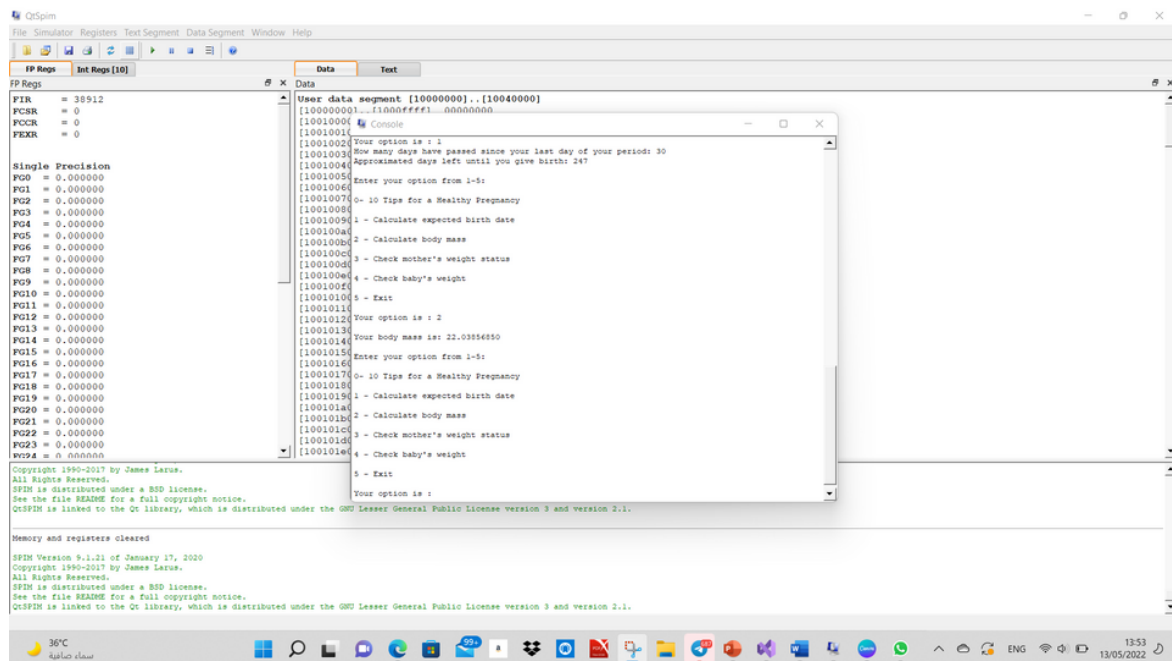
Option 0: 10 Tips for a Healthy Pregnancy



Option 1: Calculate expected birth date



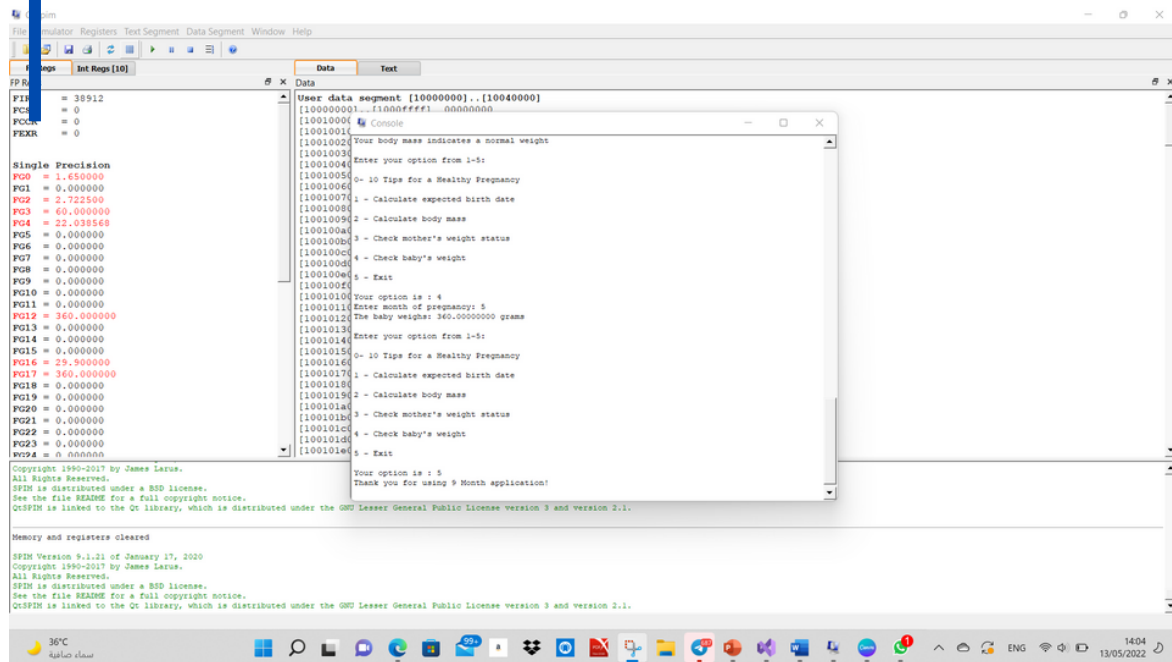
Option 2: Calculate body mass



The screenshot shows the Qt IDE interface with the SPIN application running. The main window displays a list of variables (FP0 to FP24) and a 'Data' tab with a 'Text' field. The console shows the program's output, including a menu for '0- 10 Tips for a Healthy Pregnancy' and a list of options: '1 - Calculate expected birth date', '2 - Calculate body mass', '3 - Check mother's weight status', '4 - Check baby's weight', and '5 - Exit'. The user has selected option 3, and the program has responded with 'Your body mass indicates a normal weight'.

[illegible]

Option 5: Exiting the program



The screenshot shows a debugger window with the following content:

Registers:

- FP: 38512
- ESI: 0
- ECX: 0
- EBX: 0

Single Precision:

- FG0 = 1.650000
- FG1 = 0.000000
- FG2 = 2.722500
- FG3 = 60.000000
- FG4 = 22.038568
- FG5 = 0.000000
- FG6 = 0.000000
- FG7 = 0.000000
- FG8 = 0.000000
- FG9 = 0.000000
- FG10 = 0.000000
- FG11 = 0.000000
- FG12 = 360.000000
- FG13 = 0.000000
- FG14 = 0.000000
- FG15 = 0.000000
- FG16 = 29.900000
- FG17 = 360.000000
- FG18 = 0.000000
- FG19 = 0.000000
- FG20 = 0.000000
- FG21 = 0.000000
- FG22 = 0.000000
- FG23 = 0.000000
- EV04 = 0.000000

Console Output:

```
[10010000] User data segment [10000000]..[10040000]
[10010001] [10000000]..[1000ffff]..00000000
[10010002] Console
[10010003] Your body mass indicates a normal weight
[10010004] Enter your option from 1-5:
[10010005] 0- 10 Tips for a Healthy Pregnancy
[10010006] 1 - Calculate expected birth date
[10010007] 2 - Calculate body mass
[10010008] 3 - Check mother's weight status
[10010009] 4 - Check baby's weight
[1001000a] 5 - Exit
[1001000b] Your option is : 4
[1001000c] Enter month of pregnancy: 5
[1001000d] The baby weighs: 360.000000 grams
[1001000e] Enter your option from 1-5:
[1001000f] 0- 10 Tips for a Healthy Pregnancy
[10010010] 1 - Calculate expected birth date
[10010011] 2 - Calculate body mass
[10010012] 3 - Check mother's weight status
[10010013] 4 - Check baby's weight
[10010014] 5 - Exit
[10010015] Your option is : 5
[10010016] Thank you for using 9 Month application!
```

Memory and registers cleared

SPIM Version 9.1.21 of January 17, 2020
Copyright 1990-2017 by James Larus.
All Rights Reserved.
SPIM is distributed under a BSD license.
See the file README for a full copyright notice.
QSPIM is linked to the Qt library, which is distributed under the GNU Lesser General Public License version 3 and version 2.1.