Continuing Education Program
Center for Computing and Information Technology
Fakultas Teknik Universitas Indonesia

PROJECT

VACSHINE

(Vaccination Registration Application for Health Officer)

Arranged by : Group 2

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Continuing Education Program Center for Computing and Information Technology

Faculty of Engineering, University of Indonesia

2021

PROJECT ON

vACHSINE (Vaccination Registration Application for Health Officer)

DEVELOPED BY

Name:

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NIIT

VACHSINE

Batch Code : 1CC6

Start Date : Wednesday, October 6th 2021

End Date : 3rd November 2021

Name Of Faculty : Kevin Harada

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Date of Submission : 3rd November 2021

NIIT

CERTIFICATE

This is to certify that this report titled “VACSHINE” embodies the original work done by Riki Awal Syahputra, and Naufal Rafliansyah, project in partial fulfillment of their course requirement at NIIT.

Coordinator : Kevin Harada

ACKNOWLEDGEMENT

Praise be to God Almighty for giving the author the opportunity to complete this paper. It is because of His grace and guidance that the author was able to complete the paper entitled Vachsine on time.
Vachsine's paper was prepared to fulfill the duties of a lecturer. In addition, the author also hopes that this paper can add insight for readers about Vachsine.

The author expresses his deepest gratitude to Mr. Kevin Harada as the lecturer of the course. The task that has been given can increase knowledge and insight related to the field occupied by the author. The author would also like to thank all those who have helped in the preparation of this paper.

The author realizes that this paper is still far from perfect. Therefore, constructive criticism and suggestions will be accepted by the author for the perfection of this paper.

SYSTEM ANALYSIS

System Summary:

Vacshine is a solution for the digital vaccination registration process, increasing the acceleration of vaccination through a fast and effective registration process, this application is specifically for officers in the registration process to screening so that recording is no longer done using paper manually, equipped with a simple decision system so that officers only need to enter information What is needed is symptoms and a few minor consultations, and the data will be processed to provide a quick and accurate decision.

- FLOWCHART AND PSEUDOCODE PRE-REGISTRATION

  This process is simply, the first process that will ask about the old or new membership.

- FLOWCHART REGISTRATION

  In this phase of the process officers only need to enter the data of the recipient of vaccination, and this phase will also determine whether the recipient of vaccination in accordance with criteria age provided

- FLOWCHART AND PSEUDOCODE PRE-SCREENING

  Just as the process of pre-registration, the stages of the process of pre-screening will include a prefix stage screening, such as recent health symptoms, and at this stage the best decisions will be made based on health information.

- FLOWCHART AND PSEUDOCODE SCREENING

  Following up on the previous stages, this is the advanced stages where it will be carried out checking body temperature and blood pressure and then the data will be entered into the system

- FLOWCHART AND PSEUDOCODE VALIDATION

  This is the most important where most groove decission will be done in this procedure

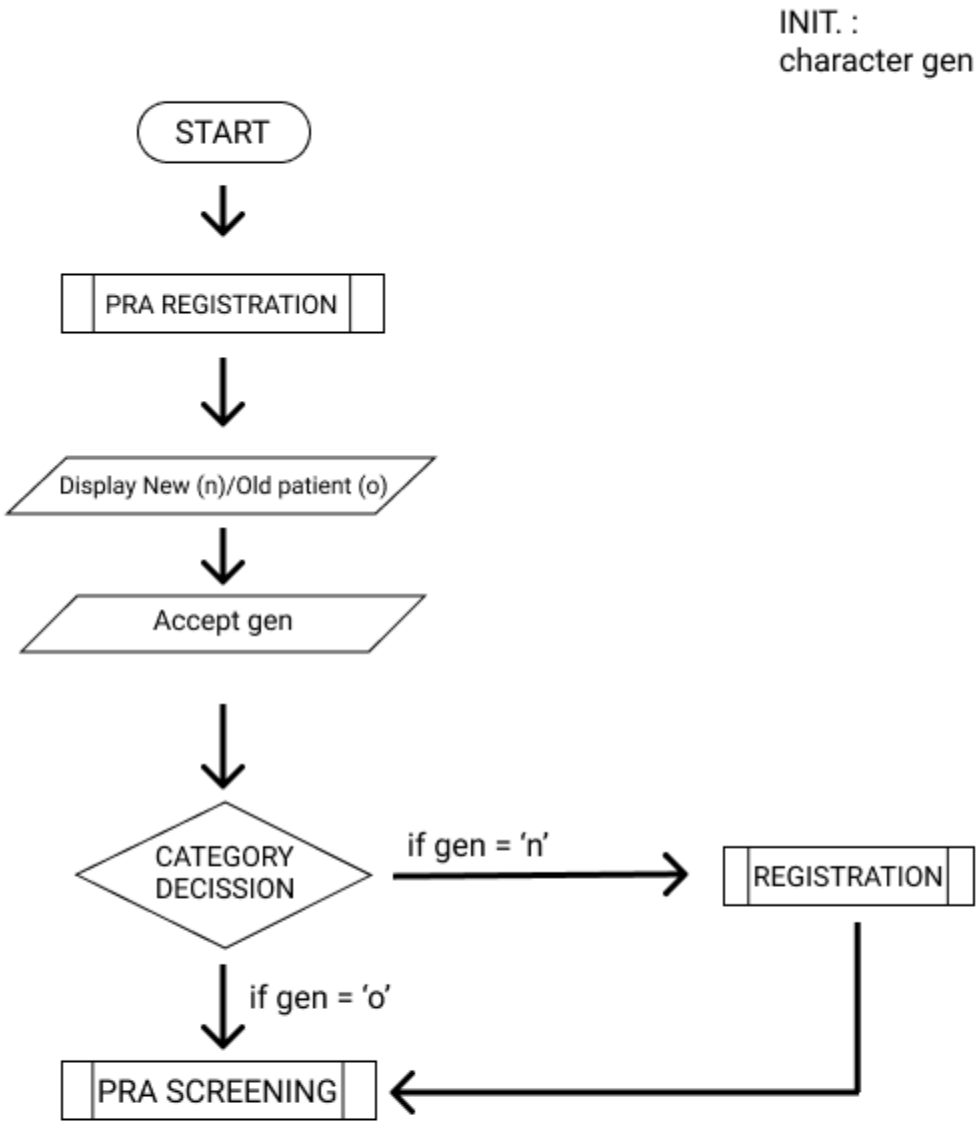
- FLOWCHART AND PSEUDOCODE QUEUE NUMBER

  Towards the final stage, the number queue is displayed first regarding the profile of the vaccination recipient.

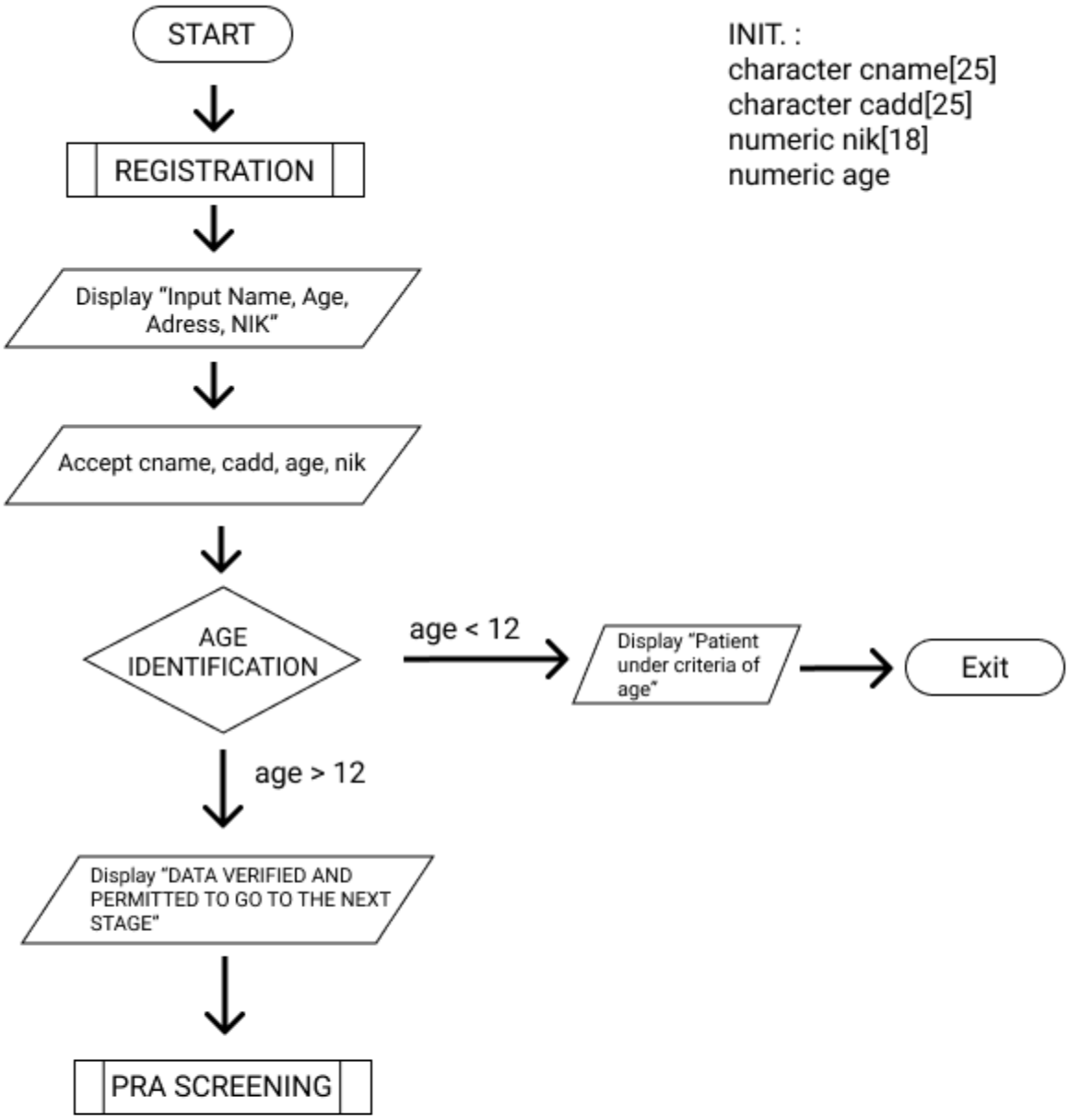
- FLOWCHART AND PSEUDOCODE CERTIFICATE

  Up to the last stage of the entire vacshine process, at this stage it will only display the certificate in script form or we can say as valid information regarding the continuation of a successful vaccination.

FLOWCHART PRA-REGISTRATION

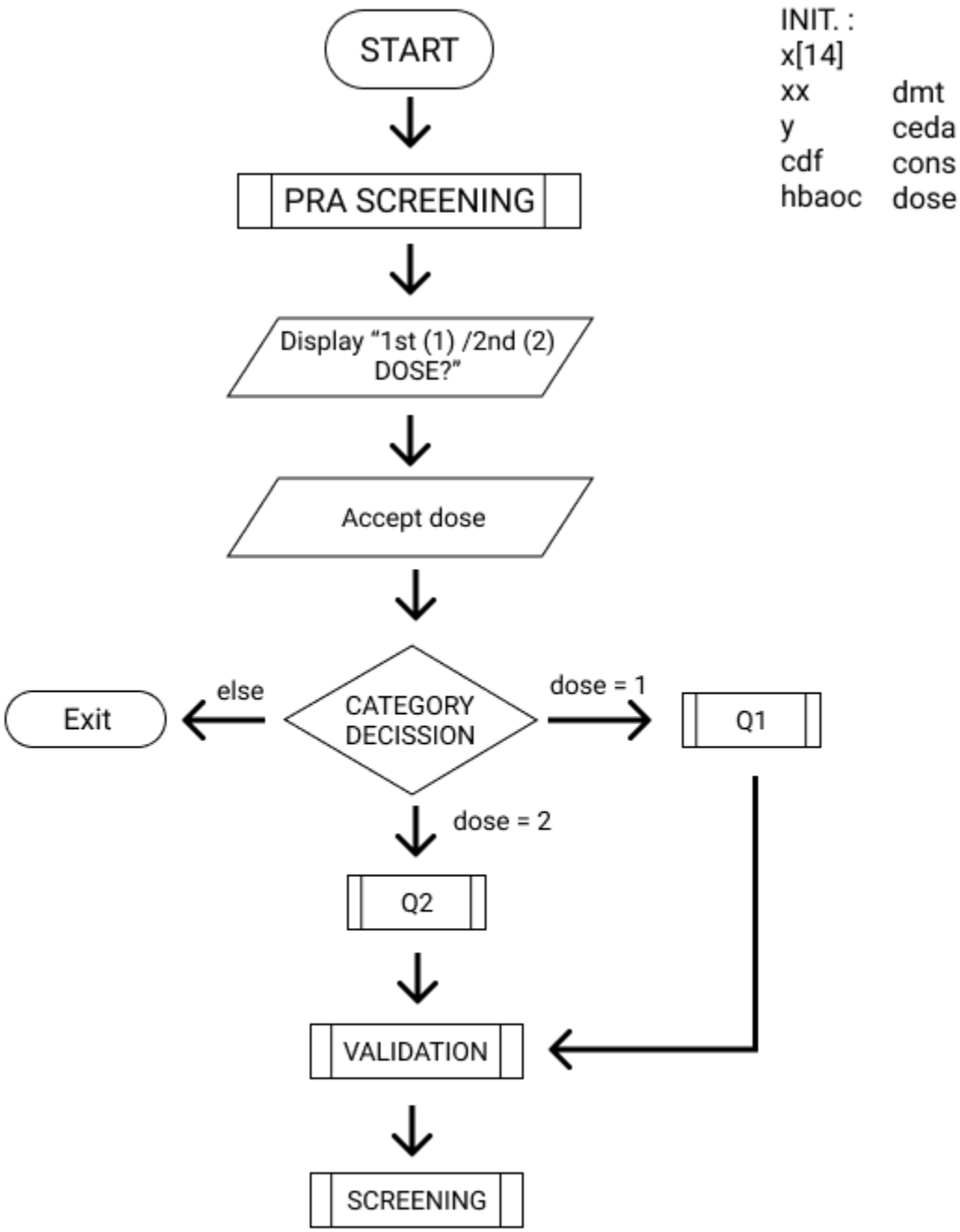


FLOWCHART REGISTRATION



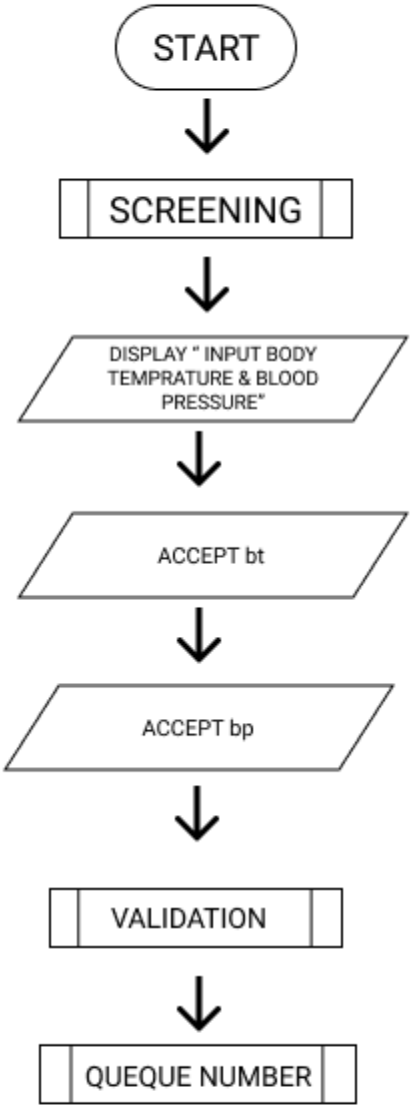
INIT. :
character cname[25]
character cadd[25]
numeric nik[18]
numeric age

FLOWCHART PRA-SCREENING

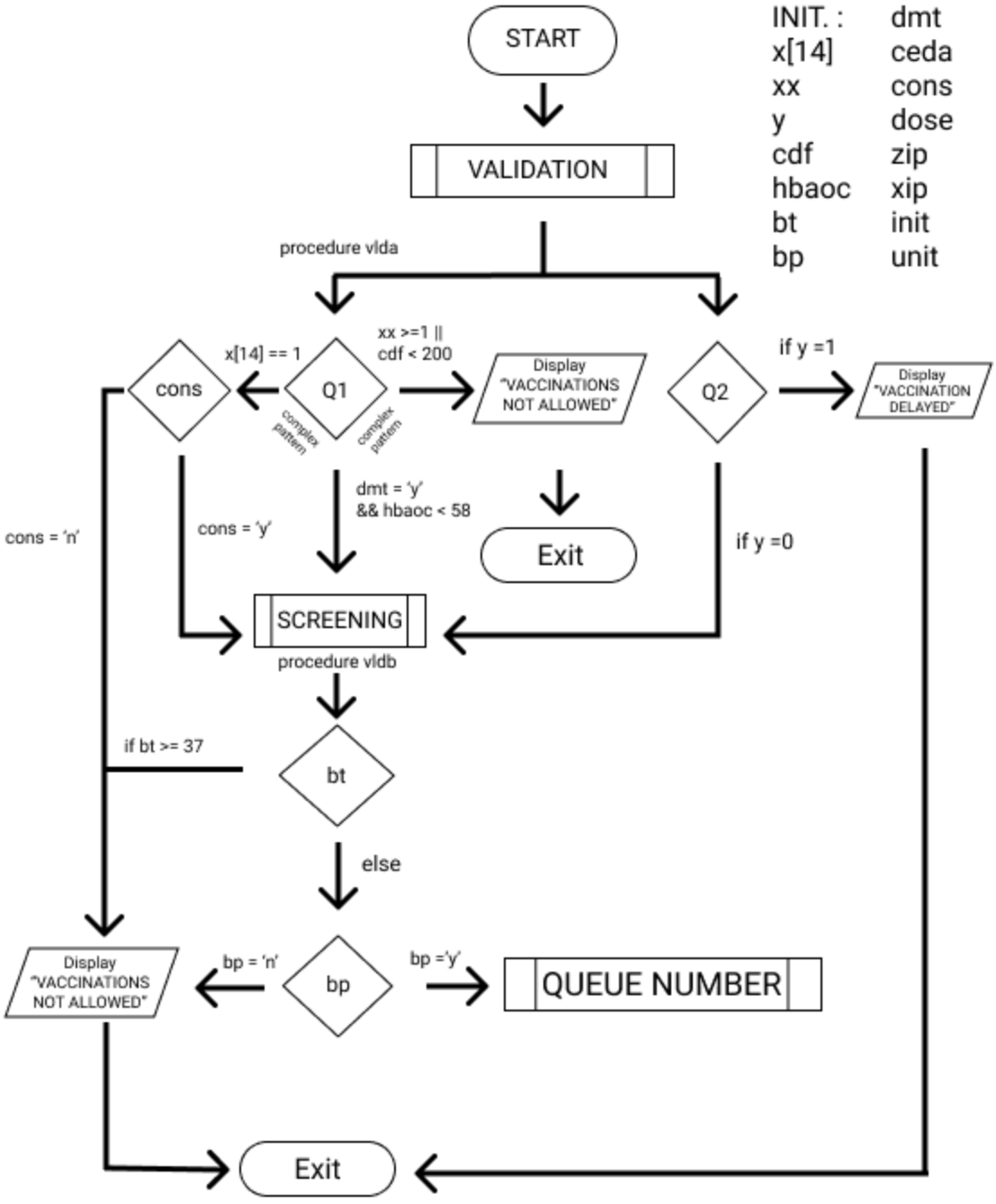


FLOWCHART SCREENING

INIT. :
bt
bp

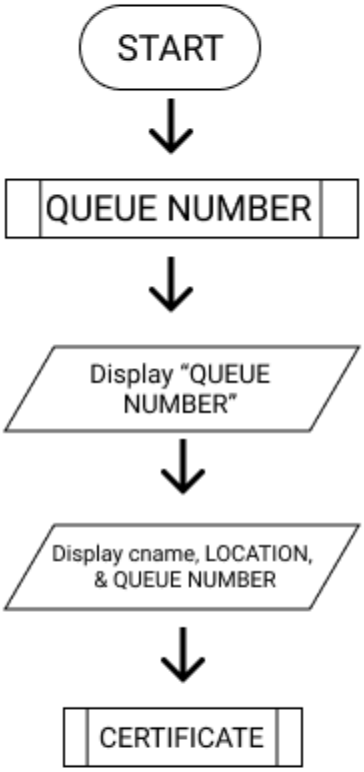


FLOWCHART VALIDATION



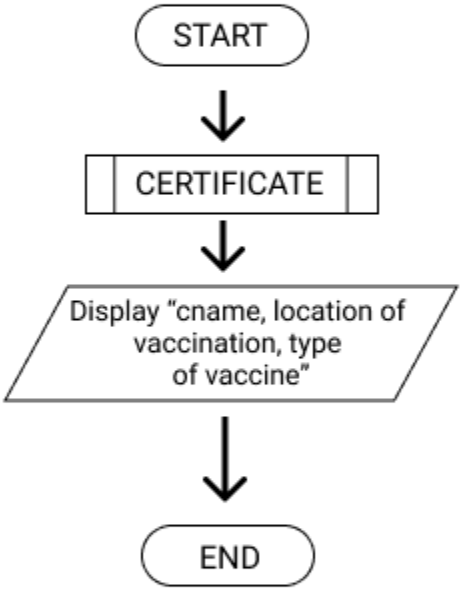
FLOWCHART QUEUE NUMBER

INIT. :
character cname[25]
character cadd[25]



FLOWCHART CERTIFICATE

INIT. :
character cname[25]
character cadd[25]



PSEUDOCODE PRA REGISTRATION

```
procedure praregnreg
begin

     display "_____________________________________________________"
     display "---------------WELLCOME TO VACSHINE-----------"
     display "WHICH ONE ARE YOU? "
     display "TYPE 'n' FOR NEW PATIENT, AND 'o' FOR OLD PATIENT "
     display "NEW (n) /OLD PATIENT (o) ? "
     accept gen

if gen == 'n' then
     begin
          display "_____________________________________________"
          display "-------GO TO REGISTRATION STAGE--------"
          display " "
          call regis
     end

else if gen == 'o' then
     begin
          display "_____________________________________________"
          display "-------GO TO PRA SCREENING STAGE--------"
          display " "
     end

else
     begin
          display " "
          display "[[OUT OF REACH EXPRESSION STATEMENT]]"
          display "[[.............RECONNECT...........]]"
          display " "
          Exit
     End
end
```

PSEUDOCODE REGISTRATION

```
procedure regis
begin

display "_____________________________________________"
display "-------------REGISTRATION--------------"
display " "
display "NAME   :"
accept cname
display "AGE    :"
accept age
display "ADRESS :"
accept cadd
display "NIK    :"
accept nik

display " "
display "_____________________________________________"
display "---------------IDENTITY DATA-----------"
display " "
display "NAME  : +cname"
display "AGE   : +age  "
display "ADRESS: +cadd "
display "NIK   : +nik  "
display " "
display "_____________________________________________"

display "--------------------STATUS--------------"
display " "
if age>=12 then
begin
display "DATA VERIFIED AND PERMITTED TO GO TO THE NEXT STAGE"
display " "
display "_____________________________________________"
end

else if age<12 then
begin
display "PATIENT UNDER CRITERIA OF AGE"
display " "
display "_____________________________________________"
exit
end

else
begin
display "SORRY, EXPRESSION OUT OF REACH"
display " "
display "_____________________________________________"
exit
end

end
```

PSEUDOCODE PRA SCREENING

```
procedure pranscreen
begin
          display "                                          "
          display "================PRA-SCREENING============"
          display " "
          display "Which vaccination do you want?"
          display "1st dose 1 /2nd dose 2 : "
          accept dose


if dose==1 then
     begin
          call q1
     end

else if dose==2 then
     begin
          call q2
     end

else
     begin
          display " "
          display "[[OUT OF REACH EXPRESSION STATEMENT]]"
          display "[[.............RECONNECT............]]"
          display " "
          exit
     end
end

//QUESTION TYPE 1 FUNCTION/PROCEDURE-----------------------------------
void q1
begin


    display " "
    display "                                          "
    display "==========PRA SCREENING QUESTION=======""
    display " "
    display " INPUT THE ANSWER CORRECTLY,  1  FOR YES AND  FOR NO"
    display " "
    display "1. Have you ever been confirmed to have COVID-19? "
    accept x[0]
    display "2. Are you pregnant or breastfeeding? "
    accept x[1]
    display "3. Have you experienced ARI symptoms such as cough/pills/
     shortness of breath in the last 7 days? "
    accept x[2]
    display "4. Are there any family members in the household who are
     in close contact/suspect/confirmed/under treatment due to COVID-19
      disease? "
    accept x[3]
    display "5. Are you on long-term active therapy for blood disorders?? "
    accept x[4]
    display "6. Do you have heart disease  heart failure/coronary
     heart disease ? "
    accept x[5]
    display "7. Do you suffer from Systemic Autoimmune Disease  (SLE/Lupus,
           Sjogren's, vasculitis, and other autoimmune diseases) ? "
    accept x[6]
```

```
display "8. Do you have kidney disease?  (chronic kidney disease/
   undergoing hemodialysis/peritoneal dialysis/kidney transplant
   /nephrotic syndrome with corticosteroids) ? "
  accept x[7]
  display "9. Do you suffer from Autoimmune Rheumatism /
    Rheumatoid Arthritis? "
  accept x[8]
  display "10. Do you suffer from chronic digestive tract disease? "
  accept x[9]
  display "11. Do you suffer from hyperthyroid/hypothyroid
    disease due to autoimmune? "
  accept x[10]
  display "12. Do you have cancer, blood disorders, immunocompromised
   /immune deficiency, and recipient of blood products/transfusions? "
  accept x[11]
  display "13.Do you suffer from Diabetes Mellitus? "
  accept x[12]

  if x[12]==1 then
   begin
      display " "
      display "_____________________________________________"
      display " [SPECIAL] IS YOUR DIABETES MELLITUS CONTROLLED  y/n ?  "
      accept dmt

      display " [SPECIAL] WHAT IS YOUR HbA1C VALUE? "
      accept hbaoc

      display "// GET OUT OF SPECIAL QUESTIONS // "
      display "_____________________________________________"
      display "-"
   end


  display "14.Do you have HIV? "
  accept x[13]

  if x[13]==1 then
   begin

      display "[SPECIAL] DO YOU KNOW THE VALUE OF CD4?  y/n  "
      accept ceda
   end
      if ceda=='y' then
   begin
      display "[SPECIAL] WHAT IS YOUR CD4 VALUE? "
      accept cdf
      display " "
      display " // GET OUT OF SPECIAL QUESTIONS // "
      display "_____________________________________________"
      display "-"
      end

      if ceda=='n' then
   begin
      display " BACK TO GENERAL QUESTIONS OUTSIDE DIABETES MELLITUS "
      display "_____________________________________________"
      display "-"

   end
```

```
    display "15. Do you have any lung disease  asthma, COPD, tuberculosis ? "
    accept x[14]

    if x[14]==1 then
     begin
        display "_____________________________________"
        display "[DOCTOR CONSULTATION SESSION]"
        display "[                          ] "
        display "[                          ] "
        display "[                          ] "
        display "[IF PATIENT IS ALLOWED, PRESS 'y', IF NOT, PRESS 'n']"
        accept cons
        display "_____________________________________"
     end

    call vlda (x[0],x[1],x[2],x[3],x[4],x[5],x[6],x[7],x[8],x[9],
     x[10],x[11],x[12],x[13],x[14],hbaoc,dmt,cdf,ceda,cons)

end

//QUESTION TYPE 2 FUNCTION/PROCEDURE-------------------------------------
procedure q2
begin

          display " "
          display "_____________________________________"
          display "----------PRA SCREENING QUESTION-------"
          display " "
          display " INPUT THE ANSWER CORRECTLY,  1  FOR YES AND  FOR NO"
          display " "
          display "1. Do you have a history of severe allergies or experience
               symptoms of shortness of breath, swelling
               and redness after being vaccinated against COVID-19 before? "
          accept y

    if y==1 then
     begin
          display " "
          display "VACCINATION POSTPONED"
          exit
     end
    if y==0 then
     begin
        display " "
        display "GO TO SCREENING STAGE"
        call screening
     end
end
```

PSEUDOCODE SCREENING

```
procedure praregnreg
begin

     display "_____________________________________________________"
     display "---------------WELLCOME TO VACSHINE-----------"
     display "WHICH ONE ARE YOU? "
     display "TYPE 'n' FOR NEW PATIENT, AND 'o' FOR OLD PATIENT "
     display "NEW (n) /OLD PATIENT (o) ? "
     accept gen

if gen == 'n' then
     begin
          display "_____________________________________________"
          display "-------GO TO REGISTRATION STAGE--------"
          display " "
          call regis
     end

else if gen == 'o' then
     begin
          display "_____________________________________________"
          display "-------GO TO PRA SCREENING STAGE--------"
          display " "
     end

else
     begin
          display " "
          display "[[OUT OF REACH EXPRESSION STATEMENT]]"
          display "[[.............RECONNECT...........]]"
          display " "
          Exit
     End
end
```

PSEUDOCODE VALIDATON

```
//PRA SCREENING VALIDATION FUNCTION/PROCEDURE----------------------------
procedure vlda (numeric a,numeric b,numeric c,numeric d,numeric e,numeric f,numeric g,numeric h,numeric i,
numeric j,numeric k,numeric l, numeric m, numeric n, numeric o, numeric hbaoc, character dmt, numeric cdf,
 character ceda, numeric cons)
 begin

   xx = a+b+c+d+e+f+g+h+i+j+k+l


   //Q1 CONDITION TRUE----------------------------------------------------------------------------------------------------Q1
   if xx<1 then
          begin
                 zip++
          end
   //Q1 CONDITION FALSE---------------------------------------------------------------------------------------------------Q1
   if xx>=1 then
          begin
                 xip++
                 unit='b'
          end

   //-------------------------------------------------------------------------------------------------------------------------

   //DM CONDITION TRUE----------------------------------------------------------------------------------------------------DM
   if m == 0 then
          begin
                 zip++

          end
   if dmt=='y'  and hbaoc<58 and m == 1 then
          begin
                 zip++

          end
   //DM CONDITION FALSE---------------------------------------------------------------------------------------------------DM
   if dmt=='n'  and hbaoc >58 and m == 1 then
          begin
                 xip++
                 unit='b'
          end

   //-------------------------------------------------------------------------------------------------------------------------

   //HIV CONDITION TRUE---------------------------------------------------------------------------------------------------HIV
   if n == 0 then
          begin
                 zip++

          end
   if cdf>200  and ceda =='y'  and n == 1 then
          begin
                 zip++

          end
```

```
//HIV CONDITION FALSE----------------------------------------------------------------------------------------------------HIV
   if cdf<200 and ceda =='y' and n == 1 then
begin
      xip++
      unit='b'
   end
   if ceda =='n' and n == 1 then
begin
      xip++
      unit='b'
   end

   //-------------------------------------------------------------------------------------------------------------------------

   //CONSULTATION CONDITION TRUE----------------------------------------------------------------------------------------CONSULTATION
   if o == 0 then
begin
      zip++
   end
   if cons=='y' and o == 1 then
begin
      zip++

   end
   //CONSULTATION CONDITION FALSE---------------------------------------------------------------------------------------CONSULTATION
   if cons=='n' and o == 1 then
begin
      xip++
      if unit=='b' then
begin
      init='a'
      end
      if unit=='a' then
begin
      init='b'
      end
   end

   //-------------------------------------------------------------------------------------------------------------------------

   display " "
   display "_____________________________________________"
   display "-----------DECISION PROFILE----------"
   display " "
   display "VALUE xx: +xx"
   display "VALUE hbaoc: +hbaoc"
   display "VALUE dmt: +dmt"
   display "VALUE cdf: +cdf"
   display "VALUE ceda: +ceda"
   display "VALUE cons: +cons"
   display "ZIP INDICATOR: +zip"
   display "XIP INDICATOR: +xip"
   display "INIT INDICATOR: +init"
   display "UNIT INDICATOR:+unit"
   display "_____________________________________________"
   display " "
```

```
if zip>=4 and xip<1 and init=='a' and unit=='a' then
begin
      call screening
   end
   if zip==3 and xip==1 and init=='a' and unit=='b' then
begin
      display "VACCINATIONS NOT ALLOWED"
      exit
   end
   if zip==3 and xip==0 and init=='a' and unit=='a' then
begin
      display "VACCINATIONS NOT ALLOWED"
      exit
   end
   if zip<3 and xip>1 and init=='a' and unit=='b' then
begin
      display "VACCINATIONS NOT ALLOWED"
      exit
   end
   if zip<=3 and xip>=1 and init=='b' and unit=='a' then
begin
      display "VACCINATION DELAYED"
      exit
   end
end
```

```
//SCREENING VALIDATION FUNCTION/PROCEDURE---------------------------------
procedure vldb (numeric bt, character bp)
begin

display“ “
display "_____"
display“ “
display "STATUS: "

if bt>=37 and bp=='n' then
begin
   display "VACCINATION DELAYED"
   exit
end

if bt>=37 and bp=='y' then
begin
   display "VACCINATION DELAYED"
   exit
end

if bt<37 and bp=='n' then
begin
   display "VACCINATION DELAYED"
   exit
end

if bt<37 and bp=='y' then
begin
   display "VACCINATIONS ALLOWED"
end

display“ “
display "_____"

end
```

PSEUDOCODE QUEUE NUMBER

```
//QUEUE NUMBER FUNCTION/PROCEDURE----------------------------------------
procedure que
begin
        display "_____"
        display "----------QUEUE NUMBER----------"
        display " "
        display "NAME       : +cname
        display "LOCATION    : PUBLIC HEALTH CENTER 01, +cadd
        display "QUEUE NUMBER: 17"
        display " "
        display "_____"
end
```

PSEUDOCODE CERTIFICATE

```
//SCRIPT CERTIFICATE FUNCTION/PROCEDURE----------------------------------
procedure certificate  begin
display "_____"
display "------------SCRIPT CERTIFICATE---------"
display " "
display "NAME       : +cname"
display "LOCATION    : PUBLIC HEALTH CENTER 01, +cadd"
display "VACCINE     : MODERNA"
display " "
display "_____"
end
```

CONFIGURATION

Hadware : Intel I7 gen 11, RAM 16 GB HDD 100 GB or 1 TB, Video graphicNVidia GeForce RTX 3080
VGA Resolution : 7680x4320
Operating System : Windows 11
Software : Microsoft Word 2021
Microsoft Excel 2021

PROBLEM ENCOUNTRED

Some of the problems experienced in writing this project are as follows:

- This is our first time creating a program project, so we don't fully understand flowcharts and pseudocode yet
- because there are some obstacles, so the time to work on this project seems to be very tight with the deadline

DRY RUN TABLE

PRA REGISTRATION(pranreg)				
Initiation	Input	Process	Output	Desc
gen	n	call regis	regis page	
	o	out and go to pranscreen	pranscreen page and pra screening program	

REGISTRATION(pranreg)				
Initiation	Input	Process	Output	Desc
cname[25]	cname	accept cname	display "NAME : +cname"	
age	age	accept age	display "AGE : +age "	
			display "DATA VERIFIED AND PERMITTED TO GO TO THE NEXT STAGE"	
			display "PATIENT UNDER CRITERIA OF AGE"	
			display "SORRY, EXPRESSION OUT OF REACH"	
cadd[25]	cadd	accept cadd	display "ADRESS: +cadd "	
nik[18]	nik	accept nik	display "NIK : +nik "	

DRY RUN TABLE

PRA SCREENING(pranscreen)				
Initiation	Input	Process	Output	Desc
dose	dose	accept dose	call q1	
			call q2	
			display " " display "[[OUT OF REACH EXPRESSION STATEMENT]]" display "[[.....RECONNECT.....]]" display " "	
x[14]	x[]	accept x[]	display " " display "_____" display " [SPECIAL] IS YOUR DIABETES MELLITUS CONTROLLED y/n ? "	Q1
			display "[SPECIAL] DO YOU KNOW THE VALUE OF CD4? y/n "	
			display "_____" display "[DOCTOR CONSULTATION SESSION]" display "[ ] " display "[ ] " display "[ ] " display "[IF PATIENT IS ALLOWED, PRESS 'y', IF NOT, PRESS 'n']"	

			call vlda (x[0],x[1],x[2],x[3],x[4],x[5],x[6],x[7],x[8],x[9],x[10],x[11] ,x[12],x[13],x[14],hbaoc,dmt,cdf,ceda,cons)	Q2
y	y/y	accept y	display “ “ display "VACCINATION POSTPONED"	
	n/n		display “ “ display "GO TO SCREENING STAGE" call screening	

DRY RUN TABLE

SCREENING				
Initiation	Input	Process	Output	Desc
bt	bt	accept bt	call vldb (bt,bp)	
bp	bp	accept bp		

VALIDATION(vlda&dldb)				
Initiation	Input	Process	Output	Desc
numeric x[14]	x[14]	*Pattern combination decision	zip++	
numeric xx	xx		xip++	
numeric y	y		unit='b'	
numeric cdf	cdf		init='a'	
numeric hbaoc	hbaoc		init='b'	

character dmt	dmt		display “ “ display "_____ _____" display "----------DECISION PROFILE----------" display “ “ display "VALUE xx: +xx” display "VALUE hbaoc: +hbaoc” display "VALUE dmt: +dmt” display "VALUE cdf: +cdf” display "VALUE ceda: +ceda” display "VALUE cons: +cons” display "ZIP INDICATOR: +zip” display "XIP INDICATOR: +xip” display "INIT INDICATOR: +init” display "UNIT INDICATOR:+unit” display "_____ _____" display “ “	
character ceda	ceda		call screening	
character cons	cons		display "VACCINATIONS NOT ALLOWED"	
numeric dose	dose			
numeric zip=0	zip			

numeric xip=0	xip		display "VACCINATION DELAYED"	
character init='a'	init			
character unit='a'	unit			
numeric bt	bt			
character bp	bp			

DRY RUN TABLE

PATTERN COMBINATION DECISION					
Validation procedure	Conditional logics	Do	Nested	Do	Do so
Q1	if x[12]==1	accept dmt			call vlda (x[0],x[1], x[2],x[3],x[4],x[5],x[6],x[7],x[8], x[9],x[10], x[11],x[12],x[13],x[14],hbaoc, dmt,cdf,ceda,cons)
		accept hbaoc			
	x[13]==1	accept ceda	if ceda=='y	accept cdf	
			if ceda=='n'	end	
	if x[14]==1	accept cons			
Q2	if y==1	exit			
	if y==0	call screening			
procedure vlda (numeric a,numeric b,numeric c,numeric d,numeric e,numeric f,numeric g,numeric h,numeric i,numeric j,numeric k,numeric l, numeric m, numeric n, numeric o, numeric hbaoc, character dmt,		xx = a+b+c+d+e+f+g+h+i+j+k+l			
	if xx<1	zip++			
	if m == 0				
	if dmt=='y' and hbaoc<58 and m == 1				
	if n == 0				
	if cdf>200 and ceda =='y' and n == 1				
	if o == 0				

numeric cdf, character ceda, numeric cons)	if cons=='y' and o == 1				
	if cons=='n' and o == 1	xip++	if unit=='b'	init='a'	
			if unit=='a'	init='b'	
	if xx>=1	xip++ unit='b'			
	if dmt=='n' and hbaoc >58 and m == 1	xip++ unit='b			
	if cdf<200 and ceda =='y' and n == 1	xip++ unit='b'			
	if ceda =='n' and n == 1	xip++ unit='b'			
	if zip>=4 and xip<1 and init=='a' and unit=='a'	call screening			
	if zip==3 and xip==1 and init=='a' and unit=='b'	exit			
	if zip==3 and xip==0 and init=='a' and unit=='a'				
	if zip<3 and xip>1 and init=='a' and unit=='b'				
	if zip<=3 and xip>=1 and init=='b' and unit=='a'				

vldb (numeric bt, character bp)	if bt>=37 and bp=='n'		
	if bt>=37 and bp=='y'		
	if bt<37 and bp=='n'		
	if bt<37 and bp=='y'	end (then it will read the next subscript on main procedure which is que procedure)	

DRY RUN TABLE

QUEUE NUMBER(que)				
Initiation	Input	Process	Output	Desc
character cname[25]		+cname	display "NAME : +cname	
character cadd[25]		+cadd	display "LOCATION : PUBLIC HEALTH CENTER 01, +cadd	

SCRIPT CERTIFICATE(certificate)				
Initiation	Input	Process	Output	Desc
character cname[25]		+cname	display "NAME : +cname	
character cadd[25]		+cadd	display "LOCATION : PUBLIC HEALTH CENTER 01, +cadd	

TRIAL CORNER (C)

//RAW C CODE

```
// Online C compiler to run C program online
#include <stdio.h>

//------PRA REGISTRATION VARIABLE----------------------------------------------------------------------------------------------------

    char gen;       //for storing type of patient decision

//------REGISTRATION VARIABLE--------------------------------------------------------------------------------------------------------

    char cname[25]; //for storing name
    char cadd[25];  //for storing adress
    int nik[18];    //for storing NIK
    int age;        //for storing age

//------PRA SCREENING VARIABLE-------------------------------------------------------------------------------------------------------

    int x[14];      //for storing 15 different variable of question type 1 (numeric decision)
    int xx;         //Total value of Question type 1 (numeric decision)
    int y;          //Total value of Question type 2 (numeric decision)
    int cdf;        //for CD4 HIV value (numeric decision)
    int hbaoc;      //for HbA01C DM value (numeric decision)
    char dmt;       //for DMT char input type (character decision)
    char ceda;      //for CD4 char input type (character decision)
    char cons;      //for value of consultation (character decision)
    int dose;       //for vaccination value type of dose (numeric decision)


//------PRA SCREENING VALIDATION VARIABLE--------------------------------------------------------------------------------------------

    int zip=0;      //Indicator to represent true validation
    int xip=0;      //Indicator to represent false validation
    char init='a';  //Indicator to represent unique symbol to represent consultation validation
    char unit='a';  //Indicator to represent unique symbol to represent several decision except consultation validation

//-------SCREENING & SCREENING VALIDATION VARIABLE-----------------------------------------------------------------------------------------

    int bt;         //for storing body temprature value
    char bp;        //for storing blood pressure value


int main() {

praregnreg();       //Function for doin pra registration and registration
pranscreen();       //Function for doing pra screening and screening
que();              //Function for displaying the patient queue number of vaccination
certificate();      //Function for displaying the patient script certificate of vaccination


printf("\n");                                           //Creator identity
printf("\n");                                           //Creator identity
printf("----------------Copyright all reserved-------------\n");    //Creator identity
printf("Created by Riki Awal Syahputra & Naufal Rafliansyah\n");    //Creator identity
printf("____0_2__1_1__2_0_2_1___________V0.1_________________\n");    //Creator identity
printf("______c_e_n_t_e_r__o_f__c_o_m_p_u_t_i_n_g__U_I_____\n");    //Creator identity

return 0;

}


//PRA SCREENING AND SCREENING FUNCTION/PROCEDURE-----------------------
```

```
void pranscreen(){
printf("_____\n");
printf("----------PRA-SCREENING----------\n");
printf("\n");
printf("Which vaccination do you want?\n");
printf("1st dose(1)/2nd dose(2): ");
scanf(" %d",&dose);


if(dose==1){
q1();
}

else if(dose==2){
q2();
}

else {
printf("\n");
printf("[[OUT OF REACH EXPRESSION STATEMENT]]\n");
printf("[[.....RECONNECT.....]]\n");
printf("\n");
exit(0);
}
}
//PRA REGISTRATION AND REGISTRATION FUNCTION/PROCEDURE----------
void praregnreg(){

printf("_____\n");
printf("----------WELLCOME TO VACSHINE----------\n");
printf("WHICH ONE ARE YOU?\n ");
printf("TYPE 'n' FOR NEW PATIENT, AND 'o' FOR OLD PATIENT\n ");
printf("NEW(n)/OLD PATIENT(o)? ");
scanf(" %c", &gen);

if(gen == 'n'){
printf("_____\n");
printf("-------GO TO REGISTRATION STAGE--------\n");
printf("\n");
regis();
}

else if(gen == 'o'){
printf("_____\n");
printf("-------GO TO PRA SCREENING STAGE--------\n");
printf("\n");
}

else{
printf("\n");
printf("[[OUT OF REACH EXPRESSION STATEMENT]]\n");
printf("[[.....RECONNECT.....]]\n");
printf("\n");
exit(0);
}
}


//REGISTRATION FUNCTION/PROCEDURE----------
void regis(){



printf("_____\n");
printf("----------REGISTRATION----------\n");
printf("\n");
printf("NAME   :");
scanf(" %[^\n]", &cname);
printf("AGE    :");
scanf(" %d", &age);
```

```
printf("ADRESS :");
scanf(" %[^\n]", &cadd);
printf("NIK    :");
scanf(" %[^\n]", &nik);

printf("\n");
printf("_____\n");
printf("----------IDENTITY DATA----------\n");
printf("\n");
printf("NAME  : %s\n",cname);
printf("AGE   : %d\n",age);
printf("ADRESS: %s\n",cadd);
printf("NIK   : %s\n",nik);
printf("\n");
printf("_____\n");

printf("----------STATUS----------\n");
printf("\n");
if(age>=12){
printf("DATA VERIFIED AND PERMITTED TO GO TO THE NEXT STAGE");
printf("\n");
printf("_____\n");
}
else if(age<12){
printf("PATIENT UNDER CRITERIA OF AGE");
printf("\n");
printf("_____\n");
exit(0);

}
else{
printf("SORRY, EXPRESSION OUT OF REACH");
printf("\n");
printf("_____\n");
exit(0);
}

}

//QuUESTION TYPE 1 FUNCTION/PROCEDURE----------

void q1(){


    printf("\n");
    printf("_____\n");
    printf("----------PRA SCREENING QUESTION-------\n");
    printf("\n");
    printf(" INPUT THE ANSWER CORRECTLY, (1) FOR YES AND (0) FOR NO\n");
    printf("\n");
    printf("1. Have you ever been confirmed to have COVID-19? ");
    scanf("%d",&x[0]);
    printf("2. Are you pregnant or breastfeeding? ");
    scanf("%d",&x[1]);
    printf("3. Have you experienced ARI symptoms such as cough/pills/shortness of breath in the last 7 days? ");
    scanf("%d",&x[2]);
    printf("4. Are there any family members in the household who are in close contact/suspect/confirmed/under treatment due to COVID-19 disease? ");
    scanf("%d",&x[3]);
    printf("5. Are you on long-term active therapy for blood disorders?? ");
    scanf("%d",&x[4]);
    printf("6. Do you have heart disease (heart failure/coronary heart disease)? ");
    scanf("%d",&x[5]);
    printf("7. Do you suffer from Systemic Autoimmune Disease (SLE/Lupus, Sjogren's, vasculitis, and other autoimmune diseases)? ");
    scanf("%d",&x[6]);
    printf("8. Do you have kidney disease? (chronic kidney disease/undergoing hemodialysis/peritoneal dialysis/kidney transplant/nephrotic syndrome
with corticosteroids)? ");
    scanf("%d",&x[7]);
    printf("9. Do you suffer from Autoimmune Rheumatism / Rheumatoid Arthritis? ");
    scanf("%d",&x[8]);
    printf("10. Do you suffer from chronic digestive tract disease? ");
```

```
    scanf("%d",&x[9]);
    printf("11. Do you suffer from hyperthyroid/hypothyroid disease due to autoimmune? ");
    scanf("%d",&x[10]);
    printf("12. Do you have cancer, blood disorders, immunocompromised/immune deficiency, and recipient of blood products/transfusions? ");
    scanf("%d",&x[11]);
    printf("13.Do you suffer from Diabetes Mellitus? ");
    scanf("%d",&x[12]);

    if(x[12]==1){
        printf("\n");
        printf("_____\n");
        printf(" [SPECIAL] IS YOUR DIABETES MELLITUS CONTROLLED (y/n)?  ");
        scanf(" %c", &dmt);

        printf(" [SPECIAL] WHAT IS YOUR HbA1C VALUE? ");
        scanf(" %d", &hbaoc);

        printf("// GET OUT OF SPECIAL QUESTIONS // \n");
        printf("_____\n");
        printf("\n");
    }


    printf("14.Do you have HIV? ");
    scanf(" %d", &x[13]);

    if(x[13]==1){

        printf("[SPECIAL] DO YOU KNOW THE VALUE OF CD4? (y/n) ");
        scanf(" %c", &ceda);

        }
        if(ceda=='y'){
        printf("[SPECIAL] WHAT IS YOUR CD4 VALUE? ");
        scanf(" %d", &cdf);
        printf(" \n");
        printf(" // GET OUT OF SPECIAL QUESTIONS // \n");
        printf("_____\n");
        printf("\n");
        }

        if(ceda=='n'){
        printf(" BACK TO GENERAL QUESTIONS OUTSIDE DIABETES MELLITUS \n");
        printf("_____\n");
        printf("\n");

        }

    printf("15. Do you have any lung disease (asthma, COPD, tuberculosis)? ");
    scanf(" %d",&x[14]);

    if(x[14]==1){
        printf("_____\n");
        printf("[DOCTOR CONSULTATION SESSION]\n");
        printf("[                    ] \n");
        printf("[                    ] \n");
        printf("[                    ] \n");
        printf("[IF PATIENT IS ALLOWED, PRESS 'y', IF NOT, PRESS 'n']\n");
        scanf(" %c", &cons);
        printf("_____\n");
    }

    vlda(x[0],x[1],x[2],x[3],x[4],x[5],x[6],x[7],x[8],x[9],x[10],x[11],x[12],x[13],x[14],hbaoc,dmt,cdf,ceda,cons);

}

//QUESTION TYPE 2 FUNCTION/PROCEDURE-------------------------------------
void q2(){

    printf("\n");
```

```
    printf("_____\n");
    printf("----------PRA SCREENING QUESTION-------\n");
    printf("\n");
    printf(" INPUT THE ANSWER CORRECTLY, (1) FOR YES AND (0) FOR NO\n");
    printf("\n");
    printf("1. Do you have a history of severe allergies or experience symptoms of shortness of breath, swelling and redness after being vaccinated
against COVID-19 before? ");
    scanf(" %d", &y);
    if(y==1){
        printf("\n");
        printf("VACCINATION POSTPONED");
        exit(0);
    }
    if(y==0){
        printf("\n");
        printf("GO TO SCREENING STAGE\n");
        screening();
    }
}

//PRA SCREENING VALIDATION FUNCTION/PROCEDURE----------------------------
void vlda(int a,int b,int c,int d,int e,int f,int g,int h,int i,int j,int k,int l, int m, int n, int o, int hbaoc, char dmt, int cdf, char ceda, int cons){

    xx = a+b+c+d+e+f+g+h+i+j+k+l;


    //Q1 CONDITION TRUE-----------------------------------------------------------------------------------------------------Q1
    if(xx<1){
        zip++;
    }
    //Q1 CONDITION FALSE----------------------------------------------------------------------------------------------------Q1
    if(xx>=1){
        xip++;
        unit='b';
    }

    //-------------------------------------------------------------------------------------------------------------------

    //DM CONDITION TRUE-----------------------------------------------------------------------------------------------------DM
    if(m == 0){
        zip++;

    }
    if(dmt=='y' && hbaoc <58 && m == 1){
        zip++;

    }
    //DM CONDITION FALSE----------------------------------------------------------------------------------------------------DM
    if(dmt=='n' && hbaoc >58 && m == 1){
        xip++;
        unit='b';
    }

    //-------------------------------------------------------------------------------------------------------------------

    //HIV CONDITION TRUE----------------------------------------------------------------------------------------------------HIV
    if(n == 0){
        zip++;

    }
    if(cdf>200 && ceda =='y' && n == 1){
        zip++;

    }
    //HIV CONDITION FALSE---------------------------------------------------------------------------------------------------HIV
    if(cdf<200 && ceda =='y' && n == 1){
        xip++;
        unit='b';
    }
    if(ceda =='n' && n == 1){
```

```
        xip++;
        unit='b';
    }

    //-------------------------------------------------------------------------------------------------------------------------

    //CONSULTATION CONDITION TRUE-----------------------------------------------------------------------------------------CONSULTATION
    if(o == 0){
        zip++;
    }
    if(cons=='y' && o == 1){
        zip++;

    }
    //CONSULTATION CONDITION FALSE----------------------------------------------------------------------------------------CONSULTATION
    if(cons=='n' && o == 1){
        xip++;
        if(unit=='b'){
        init='a';
        }
        if(unit=='a'){
        init='b';
        }
    }

    //-------------------------------------------------------------------------------------------------------------------------

    printf("\n");
    printf("_____________________________________________\n");
    printf("------------DECISION PROFILE-----------\n");
    printf("\n");
    printf("VALUE xx: %d\n", xx);
    printf("VALUE hbaoc: %d\n", hbaoc);
    printf("VALUE dmt: %c\n", dmt);
    printf("VALUE cdf: %d\n", cdf);
    printf("VALUE ceda: %c\n", ceda);
    printf("VALUE cons: %c\n", cons);
    printf("ZIP INDICATOR: %d\n", zip);
    printf("XIP INDICATOR: %d\n", xip);
    printf("INIT INDICATOR: %c\n", init);
    printf("UNIT INDICATOR:%c\n", unit);
    printf("_____________________________________________\n");
    printf("\n");

    if(zip>=4 && xip<1 && init=='a' && unit=='a'){
        screening();
    }
    if(zip==3 && xip==1 && init=='a' && unit=='b'){
        printf("VACCINATIONS NOT ALLOWED");
        exit(0);
    }
    if(zip==3 && xip==0 && init=='a' && unit=='a'){
        printf("VACCINATIONS NOT ALLOWED");
        exit(0);
    }
    if(zip<3 && xip>1 && init=='a' && unit=='b'){
        printf("VACCINATIONS NOT ALLOWED");
        exit(0);
    }
    if(zip<=3 && xip>=1 && init=='b' && unit=='a'){
        printf("VACCINATION DELAYED");
        exit(0);
    }
}

//SCREENING FUNCTION/PROCEDURE-----------------------------------------
void screening(){

    printf("_____________________________________________\n");
    printf("\n");
```

```
    printf("SCREENING STAGE");
    printf("\n");
    printf("_____\n");
    printf("BODY TEMPERATURE PROFILE\n");
    printf("BODY TEMPERATURE : ");
    scanf(" %d", &bt);
    printf("\n");
    printf("_____\n");
    printf("BLOOD PRESSURE PROFILE\n");
    printf("ALLOWED BLOOD PRESSURE : < 180/110\n");
    printf("IS THE PATIENT'S BLOOD PRESSURE APPROPRIATE??(y/n) ");

    scanf(" %c", &bp);
    vldb(bt,bp);

}

//SCREENING VALIDATION FUNCTION/PROCEDURE---------------------------------
void vldb(int bt, char bp){

printf("\n");
printf("_____\n");
printf("\n");

printf("STATUS: ");
if(bt>=37 && bp=='n'){
    printf("VACCINATION DELAYED");
    exit(0);
}
if(bt>=37 && bp=='y'){
    printf("VACCINATION DELAYED");
    exit(0);
}
if(bt<37 && bp=='n'){
    printf("VACCINATION DELAYED");
    exit(0);
}
if(bt<37 && bp=='y'){
    printf("VACCINATIONS ALLOWED\n");
}

printf("\n");
printf("_____\n");

}

//QUEUE NUMBER FUNCTION/PROCEDURE-----------------------------------------
void que(){

printf("_____\n");
printf("----------QUEUE NUMBER----------\n");
printf("\n");
printf("NAME        : %s\n", cname);
printf("LOCATION    : PUBLIC HEALTH CENTER 01, %s\n", cadd);
printf("QUEUE NUMBER: 17");
printf("\n");
printf("_____\n");
}

//SCRIPT CERTIFICATE FUNCTION/PROCEDURE---------------------------------
void certificate(){
printf("_____\n");
printf("----------SCRIPT CERTIFICATE---------\n");
printf("\n");
printf("NAME        : %s\n", cname);
printf("LOCATION    : PUBLIC HEALTH CENTER 01, %s\n", cadd);
printf("VACCINE     : MODERNA");
printf("\n");
printf("_____\n");
}
```

LIVE TRIAL

Alternative link:
https://code.dcoder.tech/files/code/617c22530084b8070ebbe794/pra-screening-and-validation