```
Start
```

Initialization **I**

Is Continue ="N" — No → Process **P**

Yes ↓

Display **D**

End

Bright Angels School---Students Aggregate Report Card

Student-Id
Enter Student-Id

Grade- Select ▾   *Division-* Select ▾

English
Enter English Marks

Maths
Enter Maths Marks

Science
Enter Science Marks

Social Science
Enter Social Marks

Submit

Display

```html
<button id="but" onclick="validate()">Submit</button><br><br>
<button onclick="display_array()">Display</button>
```

I

eng=0; maths=0;
sci=0; social=0;
stud_id=0;
Grade[ ]
pass[ ]
fail[ ]
total[ ]
pass_per[ ]
total_pass=0;
total_fail=0;
total_stud=0;
overall_pp=0; i=0;
gr=0;
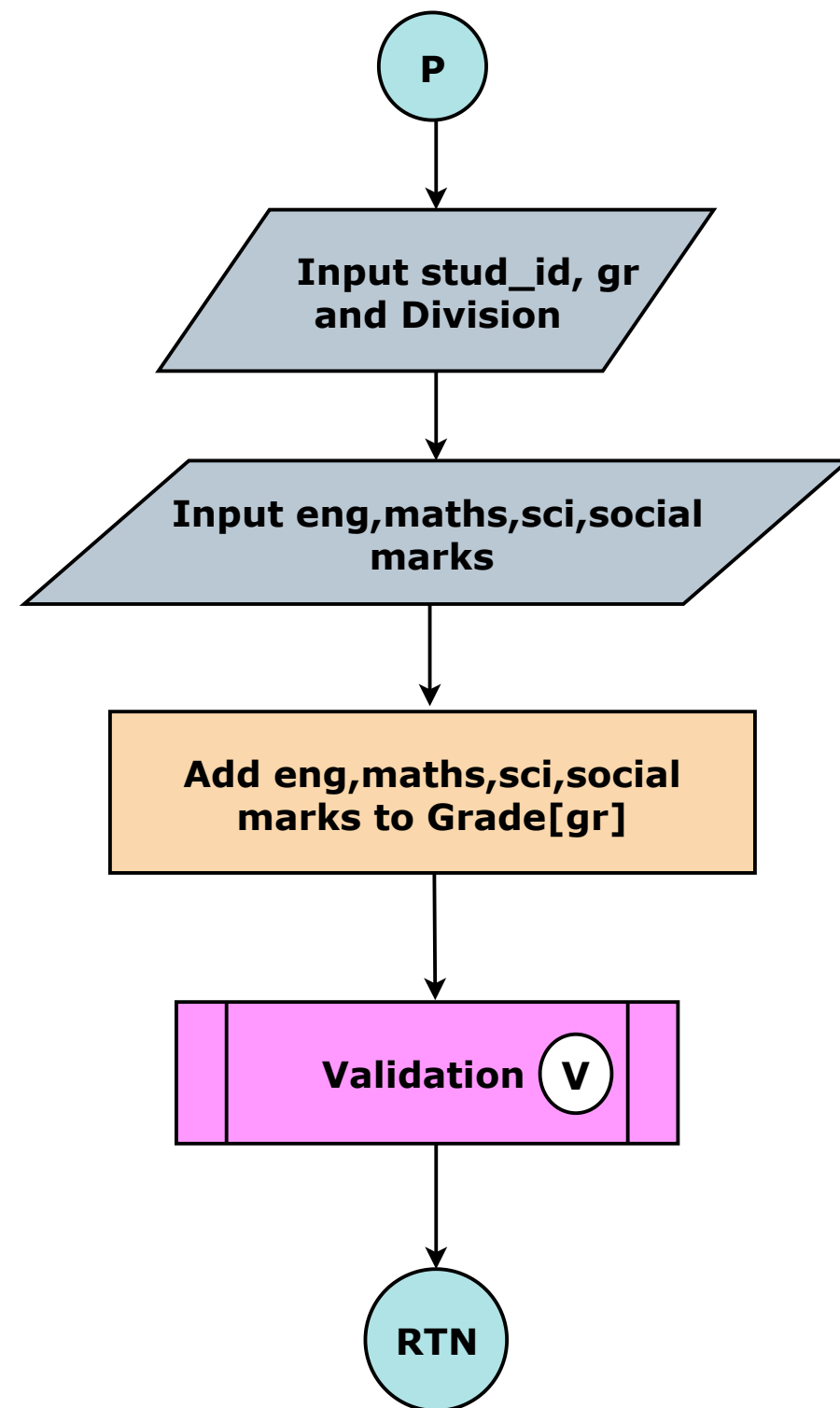
```
var eng=0,math=0,sci=0,ss=0;
var stud_id=0 ;
var i=0;
var grade=[0,1,2,3,4,5,6,7,8,9,10,11,12];
var pass=[0,0,0,0,0,0,0,0,0,0,0,0,0];
var fail=[0,0,0,0,0,0,0,0,0,0,0,0,0];
var total=[0,0,0,0,0,0,0,0,0,0,0,0,0];
var pp=[0,0,0,0,0,0,0,0,0,0,0,0,0];
var y;
var overall_pass=0,overall_fail=0,overall_pp=0,tot=0;
```

RTN

Flowchart

```
        ( P )
          |
          v
  /  Input stud_id, gr  /
  /     and Division    /
          |
          v
  /  Input eng,maths,sci,social  /
  /          marks              /
          |
          v
  [ Add eng,maths,sci,social ]
  [   marks to Grade[gr]     ]
          |
          v
  | Validation  (V) |
          |
          v
        ( RTN )
```

```javascript
stud_id=parseInt(document.getElementById("stud-id").value);
y=document.getElementById("gr").value;
eng=parseInt(document.getElementById("mark1").value);
math=parseInt(document.getElementById("mark2").value);
sci=parseInt(document.getElementById("mark3").value);
ss=parseInt(document.getElementById("mark4").value);
```

Bright Angels School---Students Aggregate Report Card

Student-Id
Enter Student-Id

Grade- Select ▾   Division- Select ▾

English
Enter English Marks

Maths
Enter Maths Marks

Science
Enter Science Marks

Social Science
Enter Social Marks

Submit

Display

```html
<button id="but" onclick="validate()">Submit</button><br><br>
<button onclick="display_array()">Display</button>
```
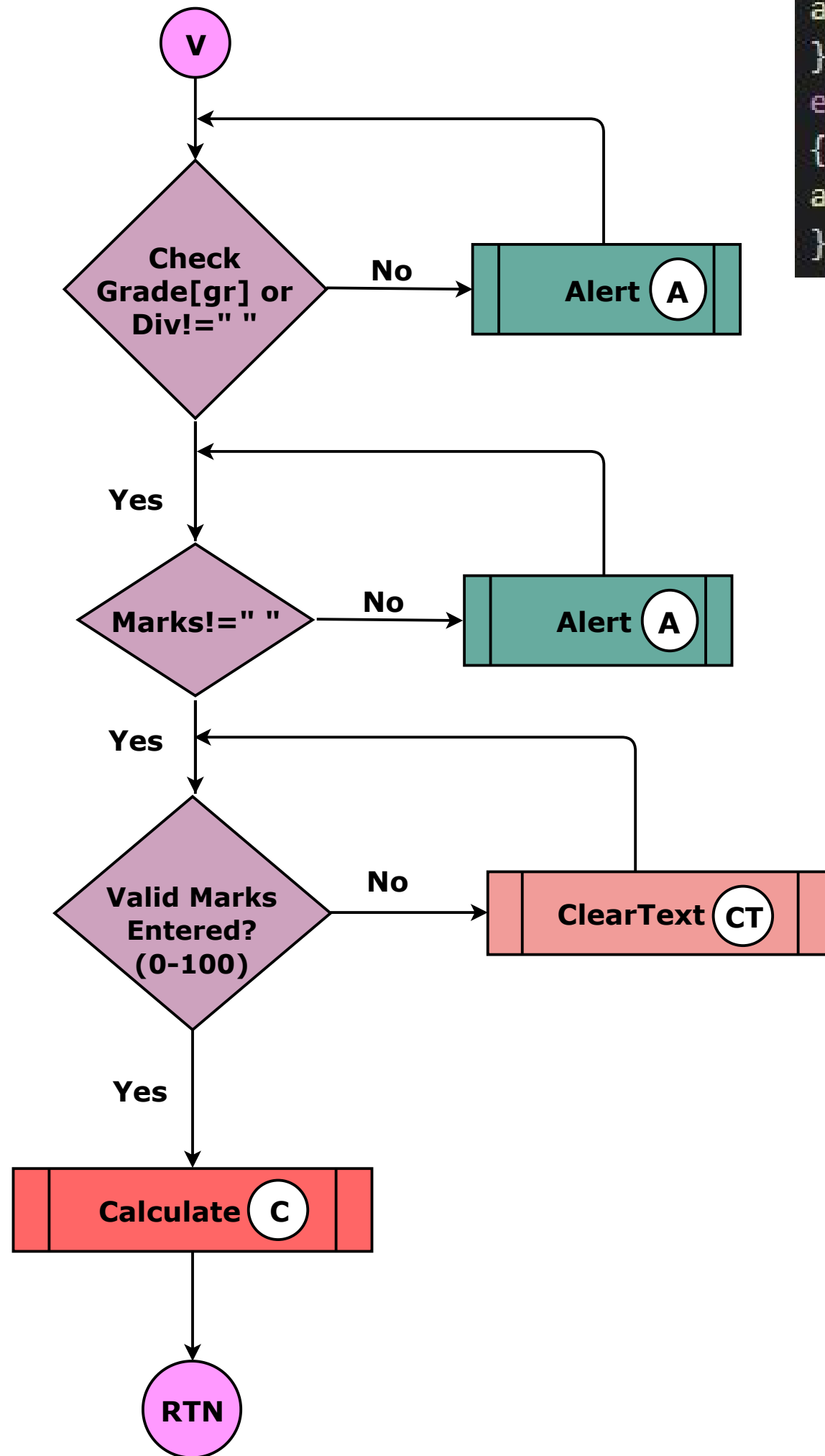
```
else if(strUser==0)
{
alert("Please select a grade");
}
else if(strUser2==0)
{
alert("Please select a Division");
}
```

This page says

Please select a grade

OK

Student-Id

1

Grade- Select ▾   Division- Select ▾

```
else if(isNaN(eng))
{
alert("Please enter English Marks");
return false;
}
else if(isNaN(math))
{
alert("Please enter Maths Marks");
return false;
}
else if(isNaN(sci))
{
alert("Please enter Science Marks");
return false;
}
else if(isNaN(ss))
{
alert("Please enter Social-Science Marks");
return false;
}
```

This page says

Marks can't be greater than 100

OK

Student-Id

1

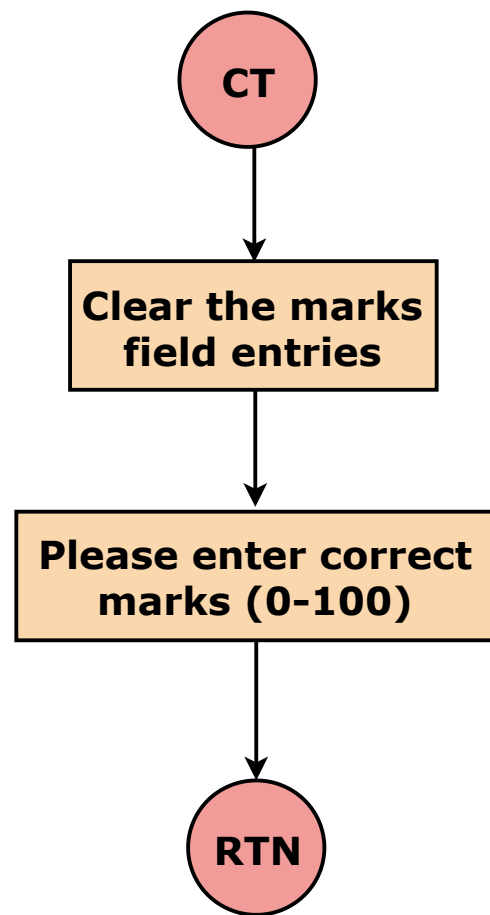Grade- 1 ▾   Division- A ▾

English

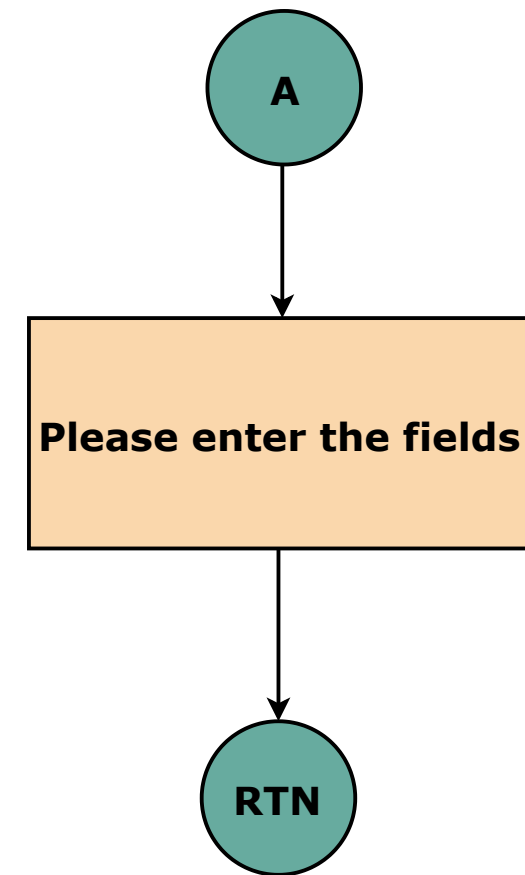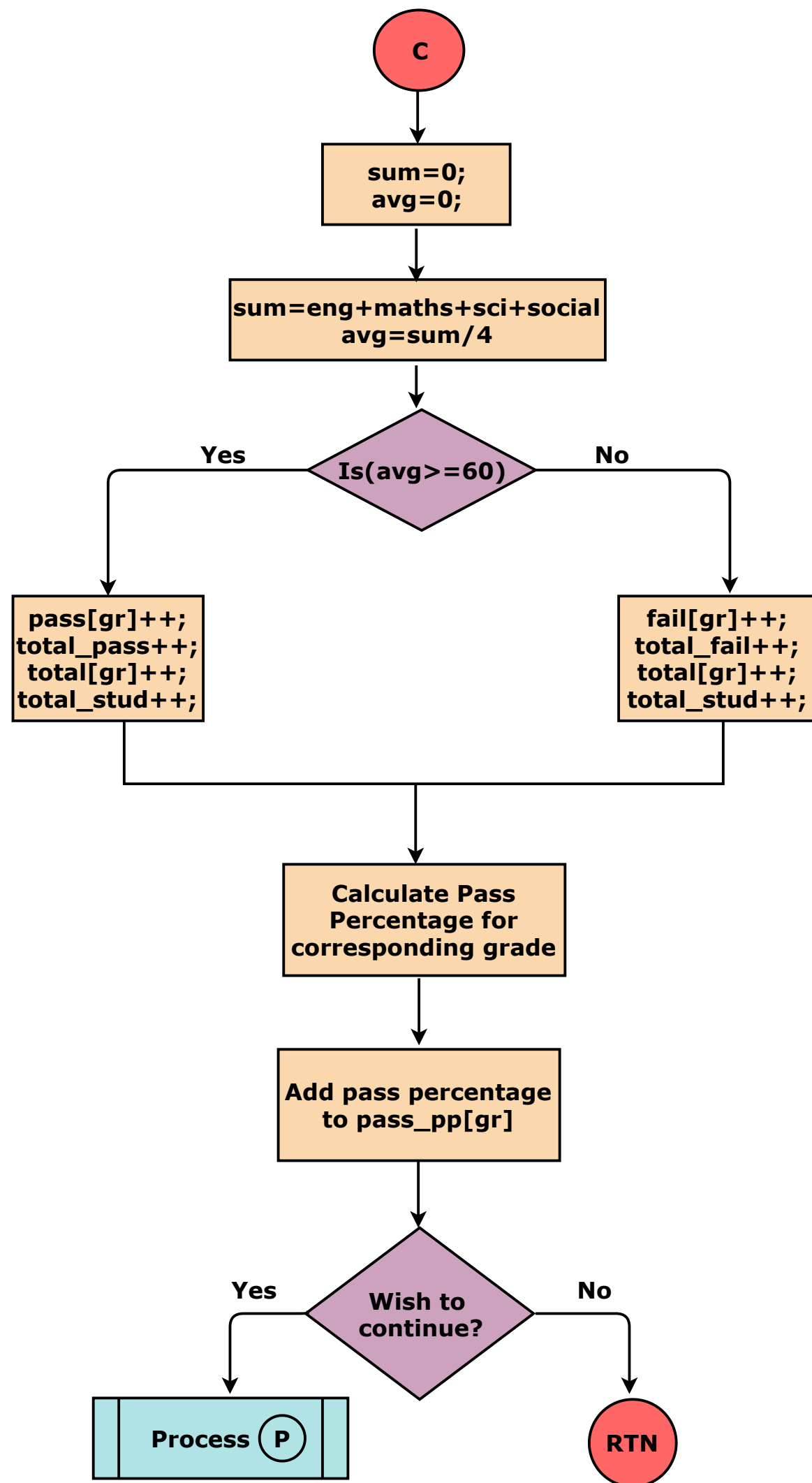1000

Maths

90

Science

90

Social Science

90

```
else if(eng<0 || math<0 || sci<0 || ss<0)
{
alert("Marks can't be negative");
return false;
valcleartext();
}
else if(eng>100 || math>100 || sci>100 || ss>100)
{
alert("Marks can't be greater than 100");
valcleartext();
}
```

CT

Clear the marks field entries

Please enter correct marks (0-100)

RTN

```
function cleartext()
{
    document.getElementById("mark1").value="";
    document.getElementById("mark2").value="";
    document.getElementById("mark3").value="";
    document.getElementById("mark4").value="";
    document.getElementById("gr").value ="0";
    document.getElementById("div").value="0";
    document.getElementById("stud-id").value="";
}
```

A

Please enter the fields

RTN

Flowchart

```
        ( C )
          │
          ▼
   ┌──────────────┐
   │   sum=0;     │
   │   avg=0;     │
   └──────────────┘
          │
          ▼
   ┌────────────────────────┐
   │ sum=eng+maths+sci+social│
   │      avg=sum/4          │
   └────────────────────────┘
          │
          ▼
      ◇ Is(avg>=60) ◇
    Yes           No
     │             │
     ▼             ▼
┌──────────────┐ ┌──────────────┐
│ pass[gr]++;  │ │ fail[gr]++;  │
│ total_pass++;│ │ total_fail++;│
│ total[gr]++; │ │ total[gr]++; │
│ total_stud++;│ │ total_stud++;│
└──────────────┘ └──────────────┘
          │
          ▼
   ┌──────────────────┐
   │ Calculate Pass   │
   │ Percentage for   │
   │ corresponding    │
   │ grade            │
   └──────────────────┘
          │
          ▼
   ┌──────────────────┐
   │ Add pass percentage│
   │ to pass_pp[gr]   │
   └──────────────────┘
          │
          ▼
      ◇ Wish to continue? ◇
    Yes              No
     │                │
     ▼                ▼
  [ Process (P) ]   ( RTN )
```

Code

```javascript
function calculate()
{
    alert("Marks Entered");
    var sum=eng+math+sci+ss;
    var average=(sum/4);
    if (average>=60)
    {
        pass[y]++;
        total[y]++;
        overall_pass++;
        tot++;
    }
    else
    {
        fail[y]++;
        total[y]++;
        overall_fail++;
        tot++;
    }
    pp[y]=(pass[y]/total[y])*100;
    pp[y]=pp[y].toFixed(0);
    if (confirm('Do you wish to continue?')) {
        // Save it!
    } else {
        display_array();
    }
    cleartext();
}
```

This page says

Do you wish to continue?

[OK] [Cancel]
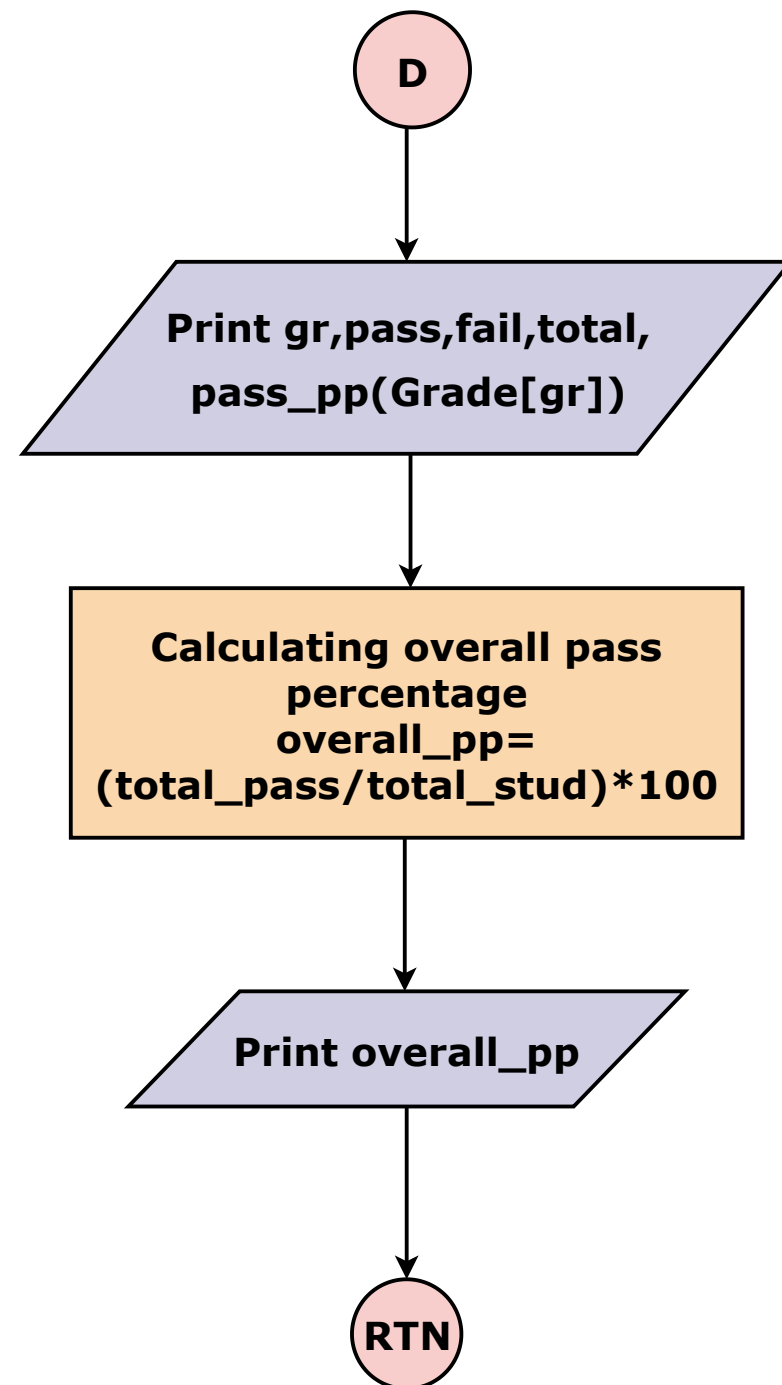
Student-Id

`1`

Grade- `1 ▼`   Division- `A ▼`

English

`90`

Maths

`90`

Science

`90`

Social Science

`90`

[Submit]

[Display]

```
D
```

Print gr,pass,fail,total,
pass_pp(Grade[gr])

Calculating overall pass
percentage
overall_pp=
(total_pass/total_stud)*100

Print overall_pp

```
RTN
```

```
for(i=1;i<10;i++)
{
var l="   "+grade[i]+"          "+total[i]+"          "+pass[i]+"          "+fail[i]+"          "+pp[i];
o+=l;
o+=m;
}
for(i=10;i<13;i++)
{
var l="   "+grade[i]+"         "+total[i]+"          "+pass[i]+"          "+fail[i]+"          "+pp[i];
o+=l;
o+=m;
}
```

```
if(tot!=0)
{
    var overall_pp=(overall_pass/tot)*100;
}
else{
    overall_pp=0;
}
overall_pp=overall_pp.toFixed(0);
```

```
var t="   "+"All"+"          "+tot+"          "+overall_pass+"          "+overall_fail+"          "+overall_pp;
```

Grade	No.of.Students	Pass.Stud	Fail.stud	Avg
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
All	0	0	0	0