Function Breakdown

First off, the user will be asked to choose type,

Function GetType(prompt):

get input: “H”, “C” or “S”

while “H” or “C” or “S”:

display print error “please enter a valid value from “H” “C” or “S”

get value;

return value;

**Function for Hourly Employee(H)**

1. In order to calculate the salary, we have to know the number of work hours of work of employee, so we design a function to get the numbers of days.

|  |  |  |
| --- | --- | --- |
| Input | Processing | Output |
| Get no of work hours  Get no of target hours  Get the hourly wage | No of work hours multiply by hourly wages. | Calculate the total salary. |

**Function GetNumOfWorkHours();**

display prompt;

Get Number of work hours from user;

while the number is less than zero:

print error;

display prompt;

get NumberOfWorkHours from user;

return NumberOfWorkHours;

1. In order to calculate the salary, we also have to know the target weekly work hours of employee, so we design a function for it.

**Function GetTargetWeeklyWorkHours();**

Display prompt;

Get TargetWeeklyWorkingHours from user:

While TargetWeeklyWorkingHours !=20,32 or 40

Print error;

Display prompt;

Get TargetWeeklyWorkingHours from user;

Return TargetWeeklyWorkingHours;

1. In order to calculate the salary, we also have to know the hourly wage of employee, so we design a function for it.

**Function GetHourlywage();**

display prompt;

get HourlyWage from user;

while horlywage!=10,15 or 24

print error;

display prompt;

get HourlyWage from user;

return HourlyWage;

4.Extra bonus beyond target hours affect the salary, so we design a function to calculate it.

|  |  |
| --- | --- |
| Condition | Action |
| Target weekly work hours =20 | Extra bonus beyond target hours =12 |
| Target weekly work hours =32 | Extra bonus beyond target hours =18 |
| Target weekly work hours =40 | Extra bonus beyond target hours =24 |

**Function CalcExtraBonus();**

HoursOfBonus = GetNumOfWorkHours - TargetWeeklyWorkHours (How many hours employee worked extra)

If target weekly work hours=20

Extra bonus=12;

If target weekly work hours=32

Extra bonus=18;

If target weekly work hours=40

Extra bonus=24;

TotalExtraBonus = Hours of bonus\*Extra Bonus

Return TotalExtrabonus;

5.Finally, calculate the total salary.

**Function CalcForHourlyEmployee();**

NumOfWorkHours =call GetNumOfWorkHours;

HourlyWage = call GetHourlyWage;

TotalExtraBonus = call CalcExtraBonus;

TotalSalary =

NumOfWorkHours \*HourlyWage + TotalExtraBonus;

Display TotalSalary;

**Function for Monthly contract employees(C)**

**Functional breakdown**

|  |  |  |
| --- | --- | --- |
| Input | Processing | Output |
| the number of days  basic salary of employee | Calculate Extrabonus Calculate Deductible wage  Calculate Full attendance | Total salary. |

1.In order to calculate the salary, we have to know the number of days of work of employee, so we design a function to get the numbers of days.

**Function GetNumOfDays():**

display prompt;

get NumberOfDays from user;

while the number is less than zero:

print error;

display prompt;

get NumberOfDays from user;

return NumberOfDays;

2.In order to calculate the salary, we also have to know the basic salary of employee, so we design a function for it.

**Function GetBasicSalary():**

display prompt;

get BasicSalary from user;

while BasicSalary != 3000, 4000 or 5000

print error;

display prompt;

get BasicSalary from user;

return BasicSalary;

3.Extra bonus is first factor to affect salary, so we design to calculate it.

|  |  |
| --- | --- |
| Condition | Action |
| BasicSalary = 3000 | ExtraBonus = 270 |
| BasicSalary = 4000 | ExtraBonus = 360 |
| BasicSalary = 5000 | ExtraBonus = 450 |
|  |  |

**Function CalcExtraBonus():**

DaysOfBonus = call **GetNumOfDays** (How many days employee work at public holidays or rest days?)

if BasicSalary = 3000

ExtraBonus = 270;

if BasicSalary = 4000

ExtraBonus = 360;

if BasicSalary = 5000

ExtraBonus = 450;

TotalExtraBonus = DaysOfBonus \* ExtraBonus;

return TotalExtraBonus;

1. Deductible wage is second factor to affect salary, so we design to calculate it.

|  |  |
| --- | --- |
| Condition | Action |
| BasicSalary = 3000 | DeductibleWage = 135 |
| BasicSalary = 4000 | DeductibleWage = 180 |
| BasicSalary = 5000 | DeductibleWage = 225 |

**Function CalcDeductiblewage():**

DaysOfAbsent = call **GetNumOfDays** (How many days employee absents?)

if BasicSalary = 3000

DeductibleWage = 135;

if BasicSalary = 4000

DeductibleWage = 180;

if BasicSalary = 5000

DeductibleWage = 225;

TotalDeductibleWage = DaysOfAbsent \* DeductibleWage;

return TotalDeductibleWage;

1. Full attendance bonus is third factor to affect salary, so we design to calculate it.

|  |  |
| --- | --- |
| Condition | Action |
| BasicSalary = 3000 and WorkOfdays >= 22 | Fullattendancebonus = 300 |
| BasicSalary = 3000 and WorkOfdays >= 22 | Fullattendancebonus = 400 |
| BasicSalary = 3000 and WorkOfdays >= 22 | Fullattendancebonus = 500 |
| WorkOfdays < 22 | Fullattendancebonus = 0 |

**Function CalcFullattendancebonus():**

WorkOfdays = call **GetNumOfDays** (How many days employee works?)

if BasicSalary = 3000 and WorkOfdays >= 22

Fullattendancebonus = 300;

if BasicSalary = 4000 and WorkOfdays >= 22

Fullattendancebonus = 400;

if BasicSalary = 5000 and WorkOfdays >= 22

Fullattendancebonus = 500;

if WorkOfdays < 22

Fullattendancebonus = 0;

return Fullattendancebonus;

1. Finally, calculate the total salary.

**Funcion CalcForContrastEmployee():**

TotalExtraBonus = call **CalcExtraBonus**;

TotalDeductibleWage = call **CalcDeductiblewage**;

Fullattendancebonus = call **CalcFullattendancebonus**;

TotalSalary =

BasicSalary + TotalExtraBonus - TotalDeductibleWage + Fullattendancebonus;

Display TotalSalary;

**Functions to Calculate Salary of Salespeople employees(S)**

1. In order to calculate the salary, we have to know the Commission the employee earns, so we design a function to get the Extra Commission amount.

**IPO Table:**

|  |  |  |
| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| Yearly Sales Price of a Salespeople Employee | Calculate Extra Commission Amount by determining the CommissionPercentage by its relevant Yearly Sales Price.  Multiply the CommissionPercentage with the Basic Salary and the whole divided by 100 which gives the Extra Commission Amount. | Extra Commission Amount |

|  |  |  |
| --- | --- | --- |
| **Path** | **Condition** | **Action** |
| Yearly Sales | Price <= $10 million | CommissionPercentage=0% |
| Price >$10 million and <=$30 million | CommissionPercentage=1% |
| Price >$30 million and <=$50 million | CommissionPercentage=2% |
| Price >=50 million | CommisionPercentage=3% |

**Pseudo Code:**

Function ExtraCommission();

display prompt;

Get Yearly Sales Price from user;

If Yearly Sales Price <= $10 million

CommisionPercentage=0%;

If Yearly Sales Price >$10 million and <=$30 million

CommisionPercentage=1%;

If Yearly Sales Price >$30 million and <=$50 million

CommisionPercentage=2%;

If Yearly Sales Price >=50 million

CommisionPercentage=3%;

ExtraCommision = (CommisionPercentage\*BasicSalary)/100

Where BasicSalary = $40000

Return TotalExtraCommission;

1. Function to calculate the Total salary.

**IPO Table:**

|  |  |  |
| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| ExtraCommision | The Total Salary of the Salesperson will be the ExtraCommission including their Basic Salary.  Add the Total Extra Commission with the Basic Salary which gives the Total Salary. | Total Salary |

**Pseudo Code:**

Function TotalSalary();

TotalExtraCommission = call ExtraCommision();

TotalSalary = TotalExtraCommision + Basic Salary

Return TotalSalary;