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```
#include <stdio.h>
```

```
int growth_population(int, int);
```

```
void analysis(int);
```

```
int main(){
```

```
    int in_rabbit, month, rab_controller, num_rabit;
```

```
    do{
```

```
        rab_controller=0;
```

```
        printf("Enter initial number of rabbits: ");
```

```
        scanf("%d",&in_rabbit);
```

```
        if(in_rabbit==0){
```

```
            rab_controller=1;
```

```
            printf("Sorry you cannot enter 0!\n");
```

```
        }
```

```
    }while(rab_controller==1);
```

```
    printf("Number of months: ");
```

```
    scanf("%d",&month);
```

```
    num_rabit= growth_population(month, in_rabbit);
```

```
    printf("At the end of month %d, rabbit population will be %d\n", month, num_rabit);
```

```

        analysis(num_rabit);

        return 0;
    }

int growth_population(int m, int initial_rabbits){
    if (m==0)
        return initial_rabbits;
    else
        return (1.25*growth_population(m-1, initial_rabbits));
}

void analysis(int rabbits){
    if (rabbits < 100)
        printf("Your farm will be a hobby farm!");
    else if (rabbits <=200)
        printf("Your farm will be a small farm!");
    else if (rabbits <=500)
        printf("Your farm will be a medium farm!");
    else if (rabbits <=1000)
        printf("Your farm will be a big farm!");
    else
        printf("Your farm will be a huge farm!");
}

```