SOFTWARE PROJECT MANAGEMENT LAB - G2
EXPERIMENT 9

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- 2K18/SE/041

AIM:- Write a program to perform the risk analysis of the project and classify them as urgent, high, medium or low based on probability of occurrence of problem and its impact.

THEORY:- A risk is any uncertain event or condition that might affect your project. Not all risks are negative. Some events (like finding an easier way to do an activity) or conditions (like lower prices for certain materials) can help your project. When this happens, we call it an opportunity; but it's still handled just like a risk.

There are no guarantees on any project. Even the simplest activity can turn into unexpected problems. Anything that might occur to change the outcome of a project activity, we call that a risk. A risk can be an event (like a snowstorm) or it can be a condition (like an important part being unavailable). Either way, it's something that may or may not happen, but if it does, then it will force you to change the way you and your team work on the project.

Risks may be rated as

1. Urgent: Risks that would cause high loss to the business.
2. High: Risks that would prevent the delivery of the software.
3. Medium: Risk may affect the company from meeting a milestone.
4. Low: Routine risks with little or no impact.

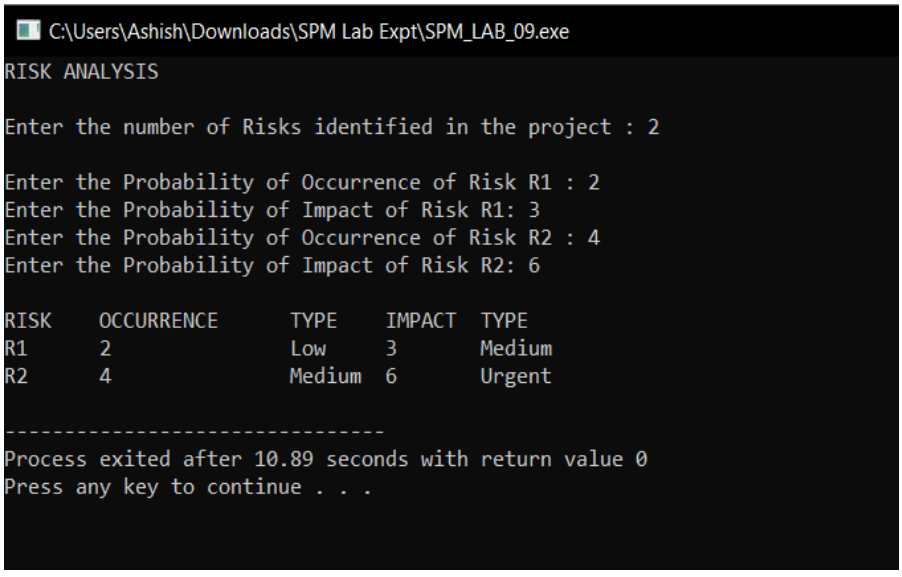
CODE:-

```
#include <iostream>
#include<bits/stdc++.h>
using namespace std;

int main() {
   cout<<"RISK ANALYSIS "<<endl;
   int n;
   cout<<"\nEnter the number of Risks identified in the project : ";
   cin>>n;
   cout<<endl;
   int riskList[1000][4];
```

```
// Low =0 ; Medium =1 ; High=2; Urgent =3
  for(int i=0;i<n;i++){
   cout<<"Enter the Probability of Occurrence of Risk R"<< i+1<<" "<< ": ";
    cin>>riskList[i][0];
    if(riskList[i][0]>=0 && riskList[i][0]<=2){
       riskList[i][2]=0;
    }
    else if(riskList[i][0]>=3 && riskList[i][0]<=5){
       riskList[i][2]=1;
    }
    else if(riskList[i][0]==6 || riskList[i][0]==7){
       riskList[i][2]=2;
    }
    else{
       riskList[i][2]=3;
    }

    cout<<"Enter the Probability of Impact of Risk R"<< i+1<< ": ";
    cin>>riskList[i][1];

    if(riskList[i][1]==0 || riskList[i][1]==1){
       riskList[i][3]=0;
    }
    else if(riskList[i][1]==2 || riskList[i][1]==3){
       riskList[i][3]=1;
    }
    else if(riskList[i][1]==4 || riskList[i][1]==5){
       riskList[i][3]=2;
    }
    else{
       riskList[i][3]=3;
    }
}

cout<<"\nRISK\tOCCURRENCE\tTYPE\tIMPACT\tTYPE\t"<<endl;
for(int i=0;i<n;i++){
       cout<<"R"<<i+1<<"\t"<<riskList[i][0]<<"\t\t";

       if(riskList[i][2]==0){
          cout<<"Low\t";
       }
       else if(riskList[i][2]==1){
          cout<<"Medium\t";
       }
       else if(riskList[i][2]==2){
          cout<<"High\t";
```

```
        }
        else{
           cout<<"Urgent\t";
        }
        cout<<riskList[i][1]<<"\t";

        if(riskList[i][3]==0){
           cout<<"Low\t";
        }
        else if(riskList[i][3]==1){
           cout<<"Medium\t";
        }
        else if(riskList[i][3]==2){
           cout<<"High\t";
        }
        else{
           cout<<"Urgent\t";
        }
        cout<<"\t"<<" "<<endl;
   }
}
```

OUTPUT:-



Findings & Learning: -

- We have successfully performed risk analysis of the project and classify them as urgent, high, medium or low based on probability of occurrence of problem and its impact.