PART-A (About 2-3 Pages)

Format for Micro-Project Proposal

Title of Micro Project: Program to check whether it is a Leap year or not.

1.0 **Brief Introduction:**

The main objective of this project is to check whether it is a Leap year or not using Microprocessor Concept's. A leap year is a year in which an extra day is added to the Gregorian calendar, which is used by most of the world. A common year (an ordinary year) has 365 days, but a leap year has 366 days. The extra day, February 29, is added to the month of February. It helps the user to find out easily if the entered year is leap year or not.

2.0 Aim of the Micro Project

The main aim of our micro project is to show whether the entered year is leap year or not.

3.0 Action Plan (Sequence and time required for major activities for 8 weeks)

Sr. No.	Details of Activity	Planned Start Date	Planned Finish Date	Name of Responsible Team Members
1	Topic Selection	5 June 2021	5 June 2021	Harshad Raurale Kaushik Shigavan Shrey Raut
2	Implementation of program	8 June 2021	9 June 2021	Harshad Raurale Kaushik Shigavan Shrey Raut
3	Format	10 June 2021	10 June 2021	Harshad Raurale Kaushik Shigavan Shrey Raut

4.0 Resources Required (Such as raw material, some machining facility, software etc.)

Sr. No.	Name of Resource/Material	Specifications	Qty	Remarks
1	Laptop	Windows 10	3	
2	Tasm	Tasm 1.7	3	
3	Notes	PPT	All	

PART-B (Outcomes after Execution and Format for Micro-Project Report, About 6-10 Pages)
For 1st to 4th Semester

Title of Micro Project: Program to check whether it is a Leap year or not.

1.0 Brief Description: (Importance of the project, in about 100 to 200 words)

The main objective of this project is to check whether it is a Leap year or not using Microprocessor Concept's. A leap year is a year in which an extra day is added to the Gregorian calendar, which is used by most of the world. A common year (an ordinary year) has 365 days, but a leap year has 366 days. The extra day, February 29, is added to the month of February. It helps the user to find out easily if the entered year is leap year or not.

2.0 Aim of Micro Project: (in about 100 to 200 words)

The main aim of our micro project is to show whether the entered year is leap year or not.

3.0 Course Outcomes Integrated (Add to the earlier list if more CO's are addressed)

1. Analyse the functional block of 8086 microprocessor.
2. Write assembly language program for the given problem.
3. Use instructions for different addressing modes.
4. Develop an assembly language program using assembler.

4.0 Actual Procedure followed

(Write stepwise the work done, including team member did what work and how the data was analyzed, if any)

1. At first we decided the topic of our micro project.
2. Then we collected all the information of our project
3. A We started programming in TASM with the help of assembly language programming
4. Initially we faced some errors but eventually all the errors were fixed at the end and the program was executed successfully.
5. In programming we tried to cover as many as Microprocessors concept's which we learned in this Semester.
6. Report was Made and the code and screenshots of the output of the project were included in the project.

5.0 Actual Resources Used: (Mention the actual resources used)

Sr. No.	Name of Resource/Material	Specifications	Qty	Remarks
1	Laptop	Windows 10	3	
2	Tasm	Tasm 1.7	3	
3	Notes	PPT	All	

6.0 Input of the Micro Projects

```
ASSUME DS:DATA1,CS:CODE1
DATA1 SEGMENT
MSG DB 0AH,0DH,'ENTER THE YEAR : $'
NUMBER DB 6,0,6 DUP('$')
YS DB 0AH,0DH,'YES,IT IS A LEAP YEAR$'
N DB 0AH,0DH,'NO,IT IS NOT A LEAP YEAR$'
DATA1 ENDS
CODE1 SEGMENT
START:MOV AX,SEG DATA1
MOV DS,AX
LEA DX,MSG
MOV AH,09H
INT 21H
LEA DX,NUMBER
MOV AH,0AH
INT 21H
LEA BX,NUMBER+4
MOV AH,[BX]
MOV AL,[BX+1]
AAD
MOV BL,04H
DIV BL
AND AH,0FFH
JZ YES
LEA DX,N
MOV AH,09H
INT 21H
JMP DOWN
YES:
LEA DX,YS
MOV AH,09H
INT 21H
DOWN:
MOV AH,4CH
INT 21H
CODE1 ENDS
END START
```

7.0 Output of the Micro Projects

```
e.g for compiling add.asm command is : tasm add.asm
For Linking and debugging same as 32 bit : tlink,td
   .
   Complink,DPMIload and TasmX also available using 32bit commands
_____________________________________________________________________

C:\TASM>tasm leapyear.asm
Turbo Assembler  Version 3.0  Copyright (c) 1988, 1991 Borland International

Assembling file:   leapyear.asm
Error messages:    None
Warning messages:  None
Passes:            1
Remaining memory:  475k


C:\TASM>tlink leapyear
Turbo Link  Version 2.0  Copyright (c) 1987, 1988 Borland International
Warning: no stack

C:\TASM>leapyear.exe

ENTER THE YEAR : 2015
NO,IT IS NOT A LEAP YEAR
C:\TASM>
```

```
_____________________________________________________________________

C:\TASM>tasm leapyear.asm
Turbo Assembler  Version 3.0  Copyright (c) 1988, 1991 Borland International

Assembling file:   leapyear.asm
Error messages:    None
Warning messages:  None
Passes:            1
Remaining memory:  475k


C:\TASM>tlink leapyear
Turbo Link  Version 2.0  Copyright (c) 1987, 1988 Borland International
Warning: no stack

C:\TASM>leapyear.exe

ENTER THE YEAR : 2015
NO,IT IS NOT A LEAP YEAR
C:\TASM>leapyear.exe

ENTER THE YEAR : 2016
YES,IT IS A LEAP YEAR
C:\TASM>
```

8.0 Skill Developed/Learning out of this Micro Project

1. We learned how to work in a team and help each other.
2. We learned how to do programming in assembly language.
3. We learned how to do time management.
4. We learned how to do Error handling.

Vidyalankar Polytechnic

Program: Computer Engineering (NBA Accredited)

Name of Student: Kaushik Shigavan **Enrollment No:** 1905680003
Name of Programmer: Computer Engineering **Semester:** 4

Course Title: MIC (Microprocessor) **Code:** 22415

Title of the Micro Project: Program to check whether it is a Leap year or not.

Course Outcomes Achieved:

1. Analyse the functional block of 8086 microprocessor.
2. Write assembly language program for the given problem.
3. Use instructions for different addressing modes.
4. Develop an assembly language program using assembler.

Micro Project Evaluation Sheet

Process Assessment		Product Assessment		Total Marks 10
Part-A Project Proposal (Mark-2)	Project Methodology (Mark-2)	Part-B Project Report/ Working Model (Marks-2)	Individual Presentation/ Viva (Marks-4)	

Note: Every course teacher is expected to assign marks for group evolution in first 3 columns and individual in 4th columns for each group of students as per rubrics.

Comments/Suggestions about team work/leadership/inter-personal communication (if any)

Any other Comments:

Name and Designation of Faculty Member

Signature:

Vidyalankar Polytechnic

Program: Computer Engineering (NBA Accredited)

Name of Student: Shrey Raut. **Enrollment No:** 1905680028

Name of Programmer: Computer Engineering **Semester:** 4

Course Title: MIC(Microprocessor) **Code:** 22415

Title of the Micro Project: Program to check whether it is a Leap year or not.

Course Outcomes Achieved:

1. Analyse the functional block of 8086 microprocessor.
2. Write assembly language program for the given problem.
3. Use instructions for different addressing modes.
4. Develop an assembly language program using assembler.

Micro Project Evaluation Sheet

Process Assessment		Product Assessment		Total Marks 10
Part-A Project Proposal (Mark-2)	Project Methodology (Mark-2)	Part-B Project Report/ Working Model (Marks-2)	Individual Presentation/ Viva (Marks-4)	

Note: Every course teacher is expected to assign marks for group evolution in first 3 columns and individual in 4th columns for each group of students as per rubrics.

Comments/Suggestions about team work/leadership/inter-personal communication (if any)

Any other Comments:

Name and Designation of Faculty Member

Signature:

Vidyalankar Polytechnic

Program: Computer Engineering (NBA Accredited)

Name of Student: Harshad Raurale **Enrollment No:** 1905680029

Name of Programmer: Computer Engineering **Semester:** 4

Course Title: MIC(Microprocessor) **Code:** 22415

Title of the Micro Project: Program to check whether it is a Leap year or not.

Course Outcomes Achieved:

1. Analyse the functional block of 8086 microprocessor.
2. Write assembly language program for the given problem.
3. Use instructions for different addressing modes.
4. Develop an assembly language program using assembler.

Micro Project Evaluation Sheet

Process Assessment		Product Assessment		Total Marks 10
Part-A Project Proposal (Mark-2)	Project Methodology (Mark-2)	Part-B Project Report/ Working Model (Marks-2)	Individual Presentation/ Viva (Marks-4)	

Note: Every course teacher is expected to assign marks for group evolution in first 3 columns and individual in 4th columns for each group of students as per rubrics.

Comments/Suggestions about team work/leadership/inter-personal communication (if any)

Any other Comments:

Name and Designation of Faculty Member

Signature: