

1. Write a program to manipulate text on C/C++ using standard Graphics Functions.

```
#include <stdio.h>
#include <graphics.h>
#include <conio.h>
int main ( ) {
    int gd = DETECT, gm;
    initgraph (&gd, &gm, (char*)" ");
    for (int i = 1; i <= 5; i++)
    {
        setcolor (WHITE);
        settextstyle (i, 0, i);
        outtextxy (100, 30*i, "Binita Bashyal");
    }
    getch();
    closegraph();
    return 0;
}
```

CA\Users\BINITA\multimedia\manipulatetext.exe

Windows EGI

Binita Bashyal

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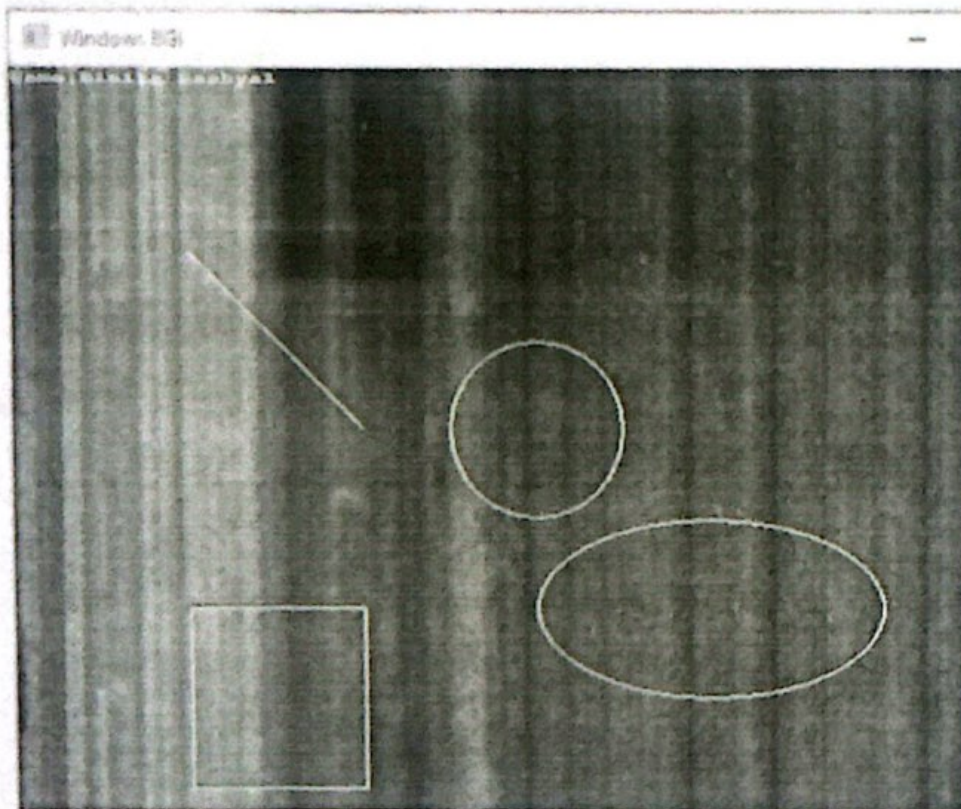
Binita Bashyal

Binita Bashyal

2. Write a program to draw graphics primitives using standard function.

Source code:

```
#include <stdio.h>
#include <graphics.h>
#include <conio.h>
int main ( ) {
    int gd = DETECT, gm;
    initgraph (&gd, &gm, (char*)"");
    outtext ("Name: Binita Bashyal");
    line (100, 100, 200, 200);
    circle (300, 200, 50);
    rectangle (100, 300, 200, 400);
    ellipse (400, 300, 0, 360, 100, 50);
    getch ( );
    closegraph ( );
    return 0;
}
```

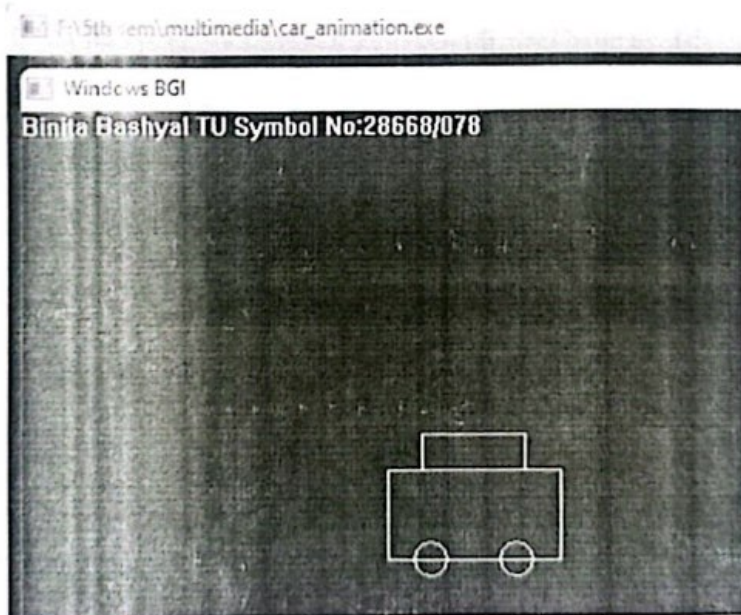
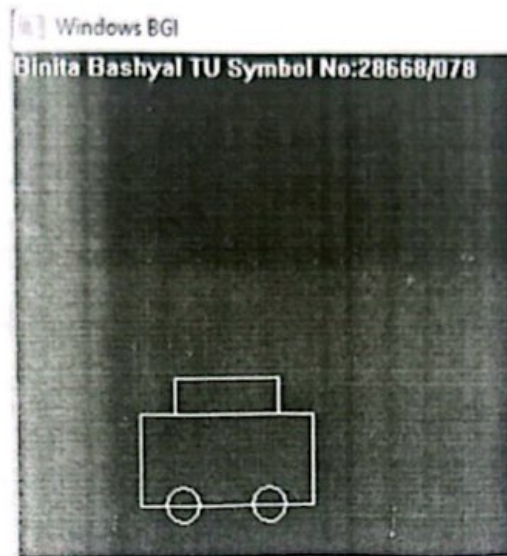


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5. Write a program to animate a car using graphics functions.

Source code:

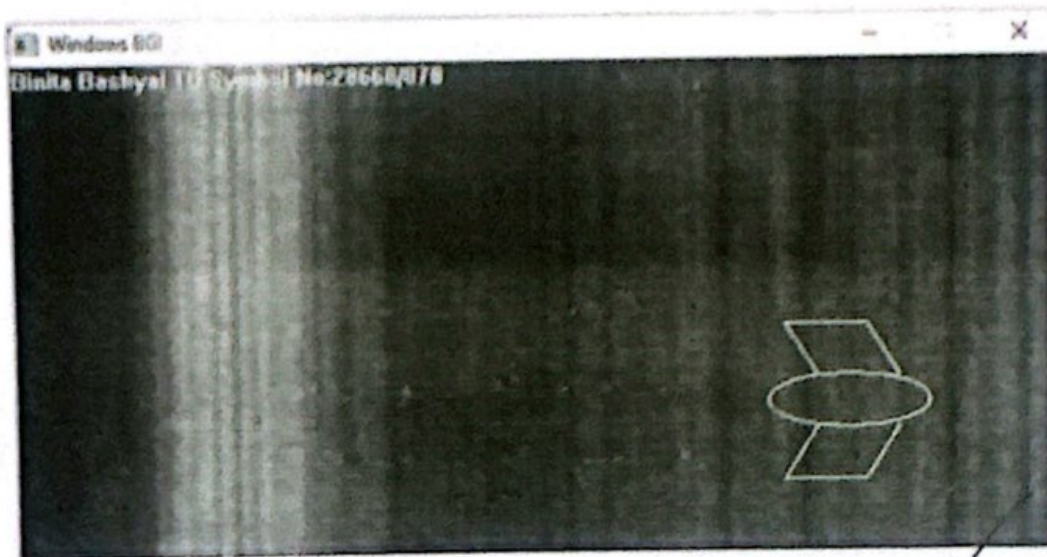
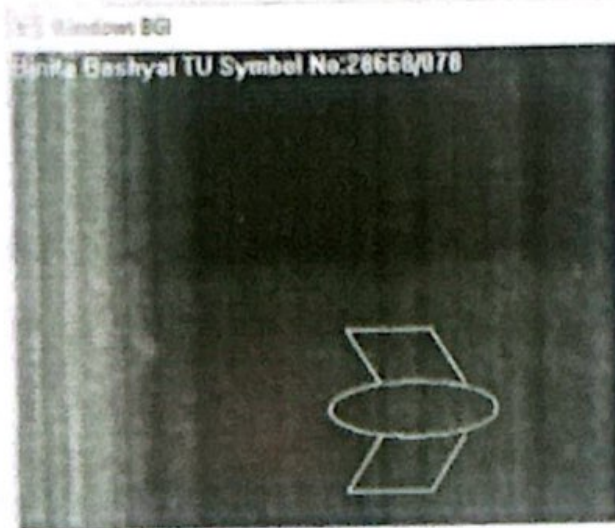
```
#include <graphics.h>
#include <conio.h>
void draw_car (int x, int y) {
    outtext ("Binita Bashyal In TU Symbol No:28668/078");
    rectangle (x, y, x+100, y+50);
    rectangle (x+20, y-20, x+80, y);
    circle (x+25, y+50, 10);
    circle (x+75, y+50, 10);
}
int main () {
    int gd = DETECT, gm;
    initgraph (&gd, &gm, Cchar* " ");
    int x = 0, y = 200;
    while (x < getmaxx()) {
        cleardevice();
        draw_car (x, y);
        x += 5;
        delay (100);
    }
    getch();
    closegraph();
    return 0;
}
```



Write a program to animate a simple aeroplane using graphics function.

Source code:

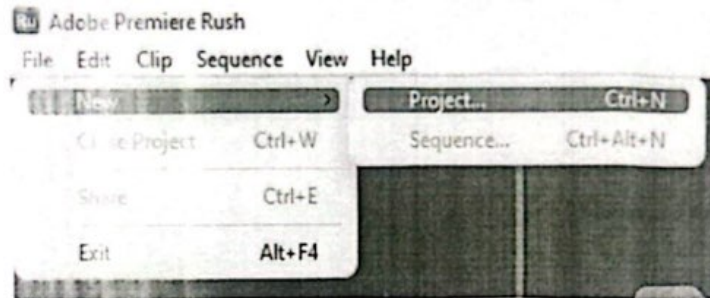
```
#include <graphics.h>
int main () {
    int gd = DETECT, gm, i;
    initgraph (&gd, &gm, (char*)" ");
    for (i = 10; i <= 620; i++) {
        cleardevice();
        outtext ("Binita Bashyal In TU Symbol No:
                28668/078");
        setcolor (WHITE);
        ellipse (100+i, 200, 0, 360, 50, 16);
        line (130+i, 185, 110+i, 155);
        line (110+i, 155, 60+i, 155);
        line (60+i, 155, 80+i, 185);
        line (80+i, 215, 60+i, 245);
        line (60+i, 245, 110+i, 245);
        line (110+i, 245, 130+i, 215);
        delay (10);
    }
    getch();
    closegraph();
    return 0;
}
```



5. Write a program/algorithm to import,edit and export a video on some video authoring software. E.g. Premiere Rush/Pro.

Algorithm:

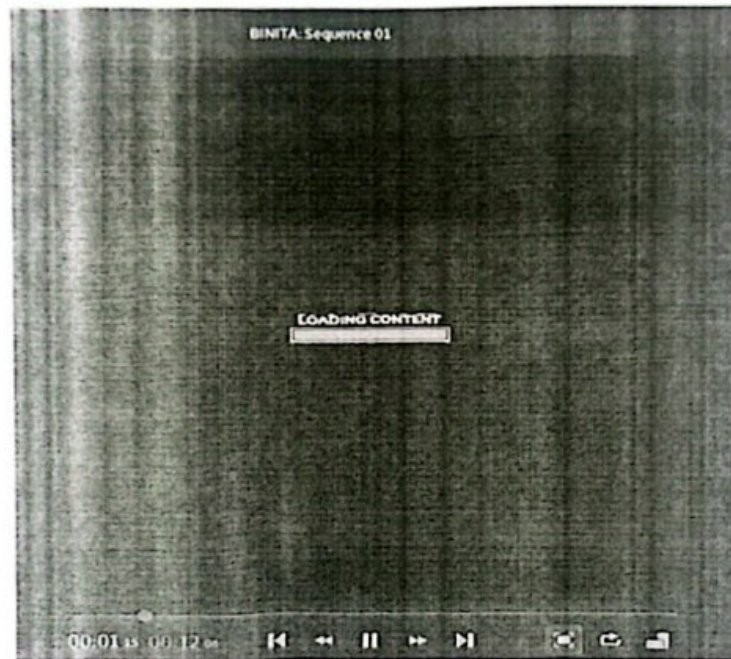
i.First open Adobe Premier Rush software and create a new project with the desired name by going to File -> New -> Project.

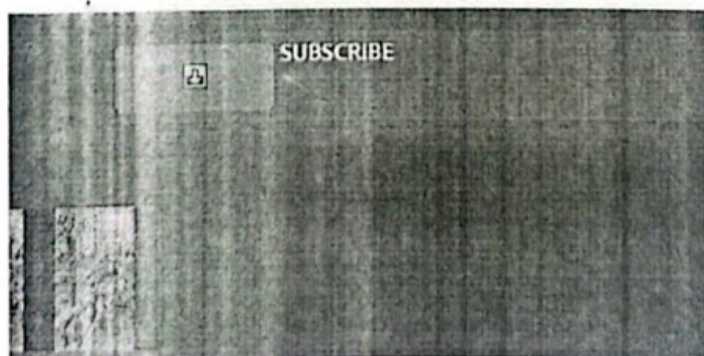
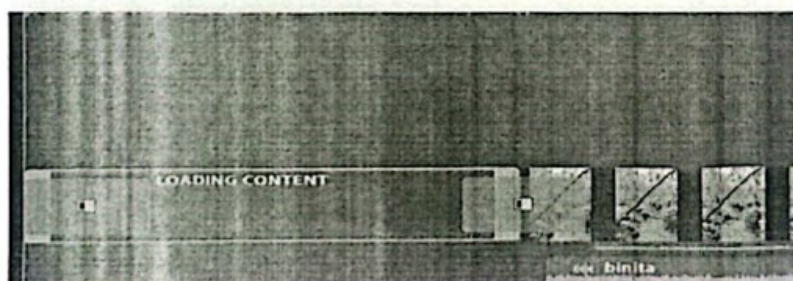
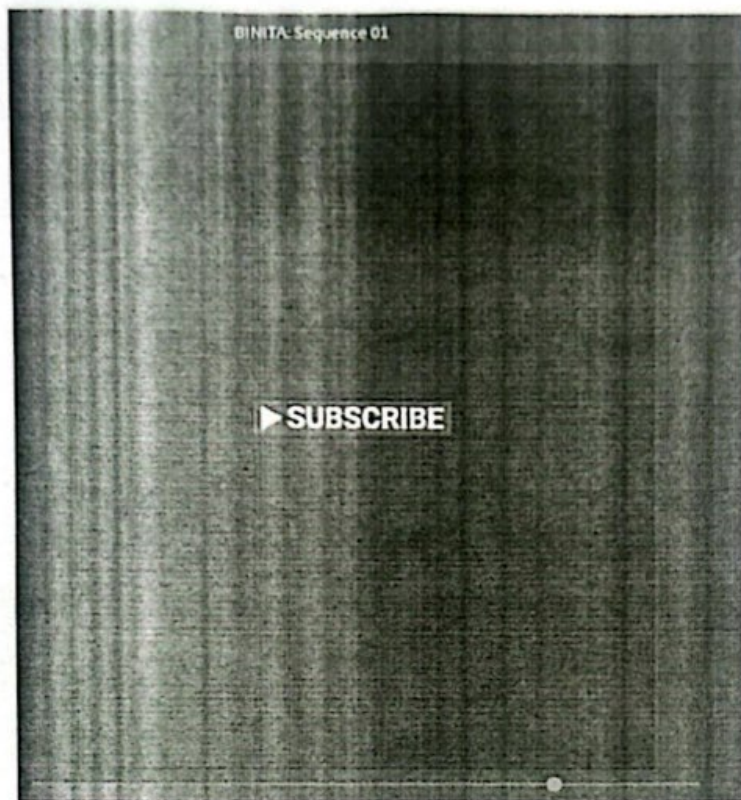


ii.Then click on File -> Import (or Import Media). This is where you'll be taken to choose the video clips you want to edit. Once done this, the clips will be placed in Media Browser or Media Pool.Bring the clips in the timeline by dragging the video to the timeline section of the software.

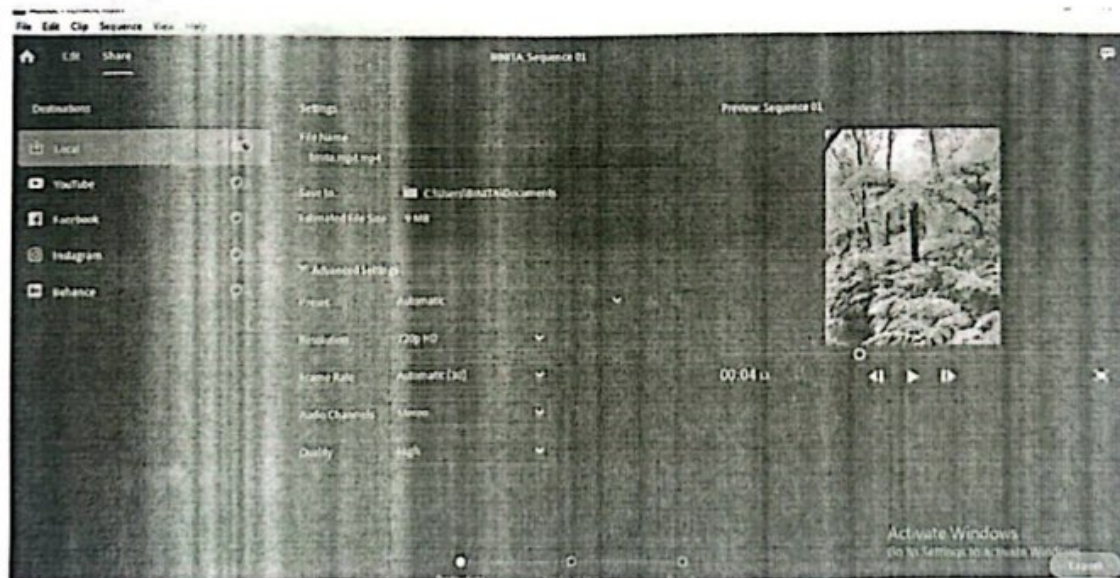


iii. The edited video contains loading image, and at the end of the video it contains subscribe logo and transition effects.





- iv. Go to the "Export" or "Share" option usually found under "File" menu.
- v. Select the desired output format (e.g., MP4, MOV, AVI, etc.)
- vi. Adjust export settings like resolution, frame rate, preset, audio quality, etc. to optimize for your intended use:
- vii. Choose a suitable name and location for your output file.
- viii. Click "Export" or "Share" to render and save your final video.

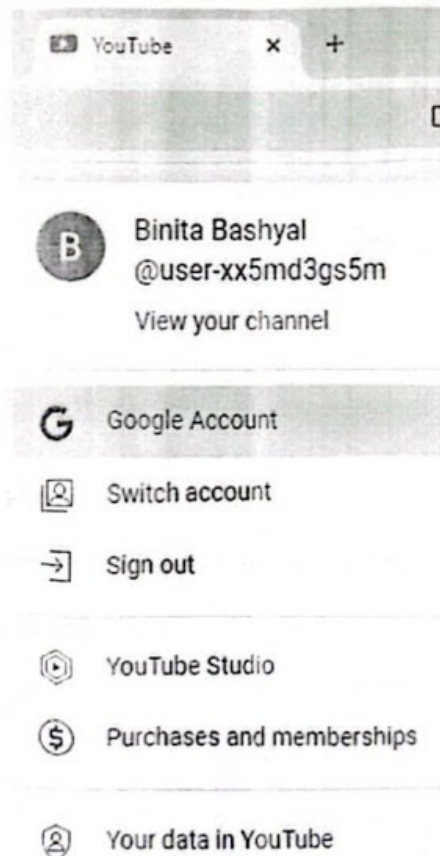


6. Write a step-by-step program/algorithm to upload the video to YouTube and embed that video on a HTML page.

Algorithm:

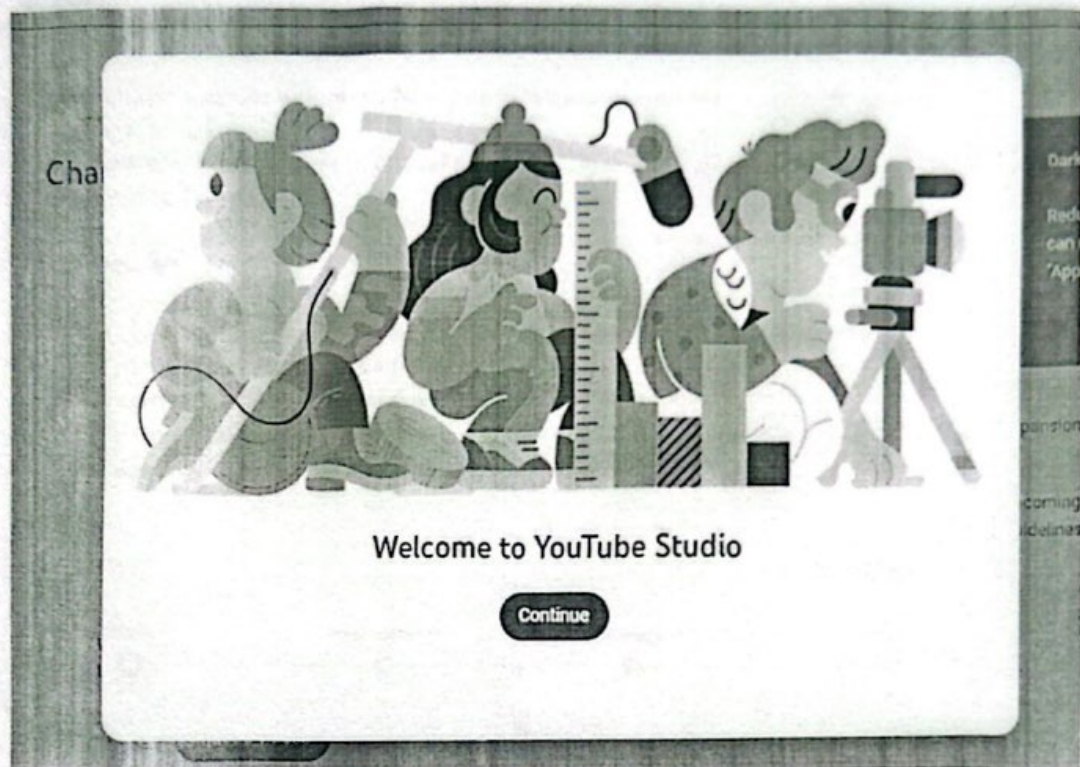
1. Sign In to Your YouTube Account:

- Open your web browser and go to YouTube.
- Sign in to your YouTube account using your Google account credentials.



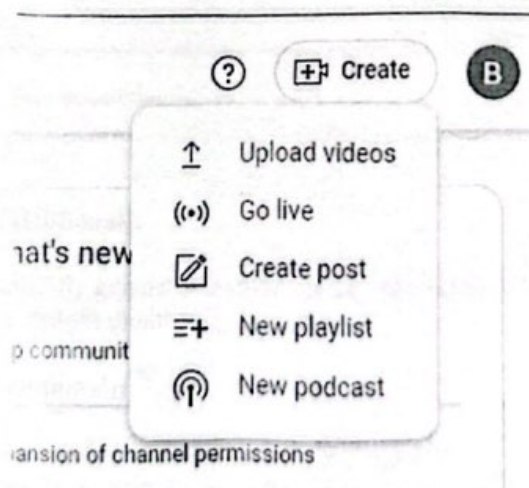
2. Access YouTube Studio:

- Once signed in, click on your profile picture at the top right corner of the YouTube homepage.
- Select "YouTube Studio" from the dropdown menu. This will take you to the YouTube Studio dashboard.



3.Upload a New Video:

- To upload a new video, click on the "+ Create" button at the top right corner of the Videos page.
- Select "Upload Video" from the dropdown menu.



4. Select Your Video File:

- A file explorer window will open. Navigate to the location on your computer where the video file is saved.
- Select the video file you want to upload and click "Open" or "Choose" (depending on your operating system).

5. Add Video Details:

- Once the video starts uploading, you can add details such as:
 - **Title:** Enter a descriptive title for your video.
 - **Description:** Write a brief description of the video content.
 - **Privacy Settings:** Choose whether to make the video public, private, or unlisted.
 - **Tags:** Add relevant tags to help viewers find your video

Binita Bashyal

Saved as private

Details Video elements Checks Visibility

Details

Reuse details

Title (required) Binita Bashyal

Description Nature

6/5000

Video link <https://youtube.com/shorts/G...>

Filename

Checks complete. No issues found.

Next

6. Choose Thumbnail (Optional):

- YouTube automatically generates thumbnails for your video. You can choose one of these or upload a custom thumbnail.

7. Advanced Settings (Optional):

- Click on "More options" to access additional settings like:
 - **Recording Date:** Specify when the video was recorded.
 - **Category:** Choose a category that best describes your video content.

- o **Audience:** Set age restrictions or enable/disable comments, etc. Select if the video is made for kids or not. If your video is made for kids, click the radio button next to "Yes, it's made for kids". If your video is not made for kids, click the radio button next to "No, it's not made for kids"

Binita Bashyal Saved as private 1 X

Details Video elements Checks Visibility

Schedule
Select a date to make your video public.

Before you publish, check the following:

Do kids appear in this video?
Make sure you follow our policies to protect minors from harm, exploitation, bullying, and violations of labor law. [Learn more](#)

Looking for overall content guidance?
Our Community Guidelines can help you avoid trouble and ensure that YouTube remains a safe and vibrant community. [Learn more](#)

Binita Bashyal
Video link
<https://youtube.com/shorts/G...>

SD Checks complete. No issues found. Back **Save**

8. Click "Publish" or "Save Changes":

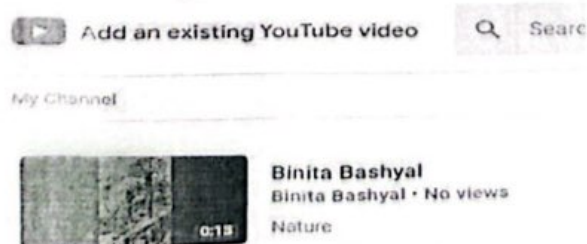
- After adding all necessary details and settings, click on "Publish" to make your video live on YouTube.
- If you're not ready to publish immediately, you can click on "Save changes" to save your video as a draft.

9. Wait for Processing:

- YouTube will process your video after uploading. Depending on the video length and quality, processing may take some time.

10. View Your Uploaded Video:

- Once processed, your video will be available on your YouTube channel for viewers to watch.



HTML code to embed the video on a HTML page

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title> Youtube Video embed </title>
```

```
</head>
```

```
<h2> Youtube Video Embed Example By  
Binita Bashyal </h2>
```

```
<iframe width="390" height="270" src="https://  
www.youtube.com/embed/KVstx2Q8gtcY4"
```

```
frameborder="1" allowfullscreen>
```

```
</iframe>
```

```
<iframe width="390" height="270"
```

```
src="https://www.youtube.com/embed/87by10jfxlw"
```

```
title="Youtube video player" allowfullscreen>
```

```
</iframe>
```

```
</body>
```

```
</html>
```

HTML code to embed the video on a HTML page:



Write a program to implement run length coding on given set of strings.

Source code:

```
#include <stdio.h>
#include <string.h>
void printRLE (char str[]) {
    int n = strlen (str);
    for (int i = 0; i < n; i++) {
        int count = 1;
        while (i < n-1 && str[i] == str[i+1]) {
            count++;
            i++;
        }
        printf ("%c %d", str[i], count);
    }
}

int main () {
    char str[100];
    printf ("Name: Binita Bashyal\n
            TU Symbol No: 286681078");
    printf ("Enter the string: ");
    scanf ("%s", str);
    printRLE (str);
    return 0;
}
```

```
C:\Users\BINITA\multimedia\runlengthcoding.exe
Name: Binita Bashyal TU Symbol No: 28668/078
Enter the string: BBBIIIIIIIIIIIIITTTAAAAA
B3I10N1I2I2A9
-----
Process exited after 14.5 seconds with return value 0
Press any key to continue . . .
```

WAP to implement Huffman coding on some given characters and their frequencies.

Source code:

```
#include <stdio.h>
#include <string.h>
#include <stdlib.h>
typedef struct mode
{
    char ch;
    int freq;
    struct mode *left;
    struct mode *right;
} mode;
mode *heap [100];
int heapSize = 0;
void Insert (mode *element) {
    heapSize++;
    heap [heapSize] = element;
    int now = heapSize;
    while (heap [now/2] -> freq > element -> freq) {
        heap [now] = heap [now/2];
        now /= 2;
    }
    heap [now] = element;
}
mode *DeleteMin ( ) {
```

```

mode * minElement, *lastElement;
int child, now;
minElement = heap[1];
lastElement = heap[heapSize--];
for (now = 1; now * 2 <= heapSize; now = child) {
    child = now * 2;
    if (child != heapSize && heap[child+1] -> freq >
        heap[child] -> freq) {
        child++;
    }
    if (lastElement -> freq > heap[child] -> freq) {
        heap[now] = heap[child];
    }
    else {
        break;
    }
    heap[now] = lastElement;
    return minElement;
}

void print (mode * temp, char *code) {
    if (temp -> left == NULL && temp -> ch, code);
    printf("char %c code %s\n", temp -> ch, code);
    return;
}

```

```

int length = strlen (code);
char leftcode [10], rightcode [10];
strcpy (leftcode, code);
strcpy (rightcode, code);
leftcode [length] = '0';
leftcode [length+1] = '\0';
rightcode [length] = '1';
rightcode [length+1] = '\1';
printf (temp -> left, leftcode);
printf (temp -> right, rightcode);
}

int main ( ) {
heap [0] = (mode * ) malloc (sizeof (mode));
heap [0] -> freq = 0;
int n;
printf ("Name: Binita Bashyal");
printf ("Enter the no. of characters:");
scanf ("%d", &n);
printf ("Enter the characters and their
        frequencies:");

char ch;
int freq, i;
for (i=0; i<n; i++) {
scanf ("%c", &ch);

```

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

```
mode * temp = (mode *) malloc (sizeof (mode))
```

```
temp → ch = ch;
```

```
temp → freq = freq;
```

```
temp → left = temp → right = NULL;
```

```
Insert (temp);
```

```
{
```

```
if (n == 1) {
```

```
printf ("char %c code %d\n", ch);
```

```
return 0;
```

```
}
```

```
for (i = 0; i < n - 1; i++) {
```

```
mode * left = DeleteMin();
```

```
mode * right = DeleteMin();
```

```
mode * temp = (mode *) malloc (sizeof (mode));
```

```
temp → ch = 0;
```

```
temp → left = left;
```

```
temp → right = right;
```

```
temp → freq = left → freq + right → freq;
```

```
Insert (temp);
```

```
}
```

```
mode * tree = DeleteMin();
```

```
char code [10];
```

```
code [0] = '0';
```

```
print (tree, code);
```

```
}
```

C:\Users\BINITA\multimedia\huffman.exe
Name: Binita Bashyal TU Symbol No: 28668/078
Enter the no of characters: 6
Enter the characters and their frequencies:
a 05
b 09
c 12
d 13
e 16
f 45
char f code 0
char c code 100
char d code 101
char a code 1100
char b code 1101
char e code 111

