# PRIME COLLEGE

## Affiliated to Tribhuvan University

# LAB REPORT ON MULTIMEDIA COMPUTING

SUBMITTED BY : SAMYAK MANANDHAR                    SUBMITTED TO : SHARAT MAHARJAN

FACULTY : BSC.CSIT 5TH SEMESTER

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# INTRODUCTION TO ADOBE ILLUSTRATOR

Adobe Illustrator 2022 is a leading vector graphics software widely used by designers and artists for creating logos, illustrations, icons, and complex digital artwork. Its vector-based design system ensures that graphics remain crisp and scalable, making it ideal for both print and web applications. The software offers powerful tools such as the Pen, Pencil, and Shape Builder, allowing users to craft intricate designs with precision. It also provides advanced typography features, customizable artboards, and seamless integration with other Adobe Creative Cloud applications like Photoshop and After Effects. Illustrator 2022 introduces enhanced 3D effects, live shapes, and gradient tools, making the design process more intuitive and efficient. The Creative Cloud Libraries feature enables designers to access and store essential design elements across projects, enhancing productivity. Given your background in graphic design, mastering Illustrator can significantly elevate your creative projects by complementing your Photoshop skills and offering robust solutions for vector-based designs.

Adobe Illustrator 2022 offers a comprehensive platform for exploring various creative possibilities, as evident from the projects we've completed. Designing a logo for a fictional company introduced the fundamentals of vector-based design and branding. Creating a poster for a college event enhanced skills in layout composition and effective text formatting. Vectorizing a bitmap image highlighted the importance of transforming raster graphics into scalable vectors, a vital technique for professional design work. Designing a business card provided experience in working with precise dimensions and understanding professional visual presentation. Additionally, creating a cartoon character or landscape allowed for creative exploration, utilizing Illustrator's advanced drawing tools and color features. These practical exercises have laid a strong foundation for mastering Illustrator's diverse applications in graphic design.

# DESIGNING

## LAB-1 DESIGNING A LOGO FOR FICTIONAL COMPANY.

I designed a dynamic and visually captivating logo that captures the spirit of competition and energy associated with the sport. The design symbolizes agility, precision, and teamwork while incorporating elements that reflect the vibrant identity of Simrik Yuwa Pariwar. By blending bold shapes and thoughtful color choices, the logo aims to create a strong visual impact and foster excitement for the tournament, establishing a unique and memorable brand for this much anticipated event.

**Fonts:**

Neusharp W05 Black Cond Obl

**In Adobe Illustrator 2022, Logo can be made as follows:**

Steps:

1. Create a table tennis bat using the Pen Tool.

2. Use the Rectangle Tool to pull a line or stroke from the bottom of the table tennis bat.

3. Leave a small space for the text "TOURNAMENT," and pull the same stroke.

4. Add the text "2nd" to the table tennis bat using the Neusharp W05 Black Cond Obl font, which gives the logo a sporty look.

5. Add the text "TABLE TENNIS" to the right side of the bat with a text size of 160pt.

6. Leave space between the stroke for the word "TOURNAMENT," size 22.7pt which represents the logo as a tournament.

7. Set the logo color to orange, as it matches the company's main logo color.

8. Finally, export the logo as a PNG file to maintain a transparent background.

**Exported file:**
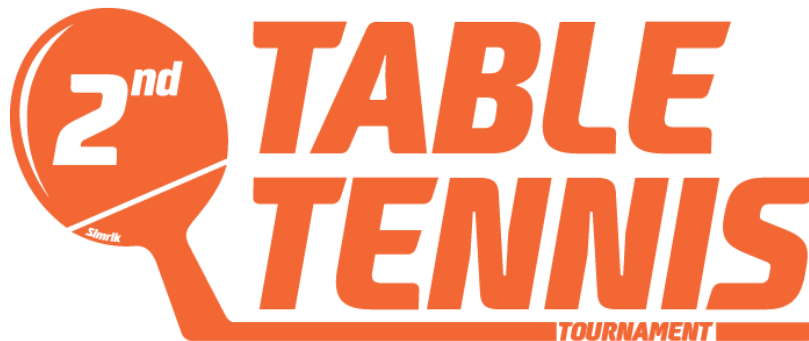
# LAB-2 CREATE A POSTER FOR COLLEGE EVENT.

The poster was designed for Prime College to celebrate the cultural event Indra Jatra. It features a vibrant depiction of Bhairav as a PNG element, the college logo, and a background image set to 20% opacity for a balanced and professional look. The design emphasizes cultural significance while maintaining the institution's branding. The project demonstrates creative design principles and Photoshop techniques to create an aesthetically appealing and informative promotional poster.

**Fonts:**

| S.N | Name | Size |
|-----|------|------|
| 1. | Montserrat | 22pt |
| 2. | Ananda Namaste | 72pt |
| 3. | Aakar | 145pt, 96pt |

**In Adobe Illustrator 2022, Poster can be made as follows:**

Steps:

1. Create artboard of size 1080*1080 RGB ppi set to 72 and background white.

2. Import a background which looks like Basantapur and set opacity to 20%.

3. Create a rectangle for footer height of 86px and width max-width of artboard.

4. Create another rectangle above the previous rectangle giving some gap height of 6px width max-width of artboard.

5. Import a png of bhairav above the small rectangle.

6. Align to the right above bhairav add text which represent the title of poster using similar color of bhairav png.

- happy indra jatra

- इन्द्रजात्राको

- शुभकामना

7. Add text using text tool for footer as url and contact details.

8. Finally, export the logo as a PNG file to maintain a transparent background.

**Exported file:**

# LAB-3 VECTORIZE A BIT MAP IMAGE.

Adobe Illustrator is a powerful tool for creating high-quality vector art, and one of its most useful features is the ability to convert raster images into scalable vector graphics using the Image Trace function. This process allows you to transform photos, sketches, or any other image into a clean, editable vector version. In this guide, we'll walk you through the steps to trace an image, adjust its settings for optimal results, and save your work in different formats for various uses. Whether you're creating logos, illustrations, or designs, this method ensures your artwork remains crisp and detailed at any size.

**In Adobe Illustrator 2022, Vectorize can be done as follows:**

1. Open Adobe Illustrator and create a new file (Custom size, 300 DPI for high quality).

2. Place the image by going to File > Open and selecting your image.

3. Open the Image Trace panel from Window > Image Trace.

4. Enable Preview to see live changes before applying the trace.

5. Adjust the settings like Threshold, Paths, Corners, and Noise for the best results.

6. Click Trace to convert the image into vector shapes.

7. Expand the traced image by clicking Expand in the toolbar.

8. Edit the vector shapes using the Direct Selection Tool (A) and Pen Tool (P).

9. Refine colors and details by adjusting individual paths and fills.

10. Save the file in AI format and export as PNG, JPG, or SVG as needed.

**Exported file:**

# LAB-4 DESIGN A BUSINESS SIZE.

This business card design for the Simrik Yuwa Pariwar's 2nd Table Tennis Tournament combines a clean layout with vibrant elements to maintain professionalism and visual appeal. The card prominently features event branding, personal details, and minimal yet impactful color schemes to ensure readability and branding consistency. Adobe Illustrator was used for creating this crisp and polished design.

**Font:**

NexaBold

**In Adobe Illustrator 2022, Business Card can be made as follows:**

Steps:

1. Open Adobe Illustrator and create a new file (3.5 x 2 inches with a 0.125-inch bleed).

2. Add a rectangular background and apply a gradient or solid color.

3. Place the event logo on the left side and scale it proportionally.

4. Insert text for the name, designation, and contact information.

5. Use bold fonts for headings and smaller fonts for details.

6. Align text and elements symmetrically using alignment tools.

7. Add icons for contact information to enhance readability.

8. Draw divider lines to separate sections for a clean layout.

9. Ensure typography, spacing, and color consistency.

10. Save the file in AI format and export as PDF or JPG for printing.

**Exported file:**

# LAB-5 CREATE A CARTOON CHARACTER OR LANDSCAPE.

This lab session focused on creating a digital illustration using vector-based tools in Adobe Illustrator. The objective was to design a flat-style human character by combining basic geometric shapes, applying color theory, and ensuring proper alignment and proportions. This report documents the step-by-step process, tools used, and the final outcome of the illustration.

**In Adobe Illustrator 2022, Cartoon character can be made as follows:**

Steps:

1. Open Adobe Illustrator and create a new file (Custom size, 300 DPI for high quality).

2. Create the head using the Ellipse Tool (L) for a circular shape and adjust the color.

3. Draw the hair using the Pen Tool (P) or another ellipse with a darker shade, then modify it with the Anchor Point Tool.

4. Make the face details by adding eyes (small circles), a nose (tiny line or dot), and a mouth (curved shape).

5. Create the body using simple shapes like rectangles and rounded rectangles for the torso and arms.

6. Add clothing details by layering different shapes with distinct colors.

7. Draw the legs and shoes using rectangles with slightly rounded corners.

8. Adjust posture by tweaking anchor points to give the character a natural pose.

9. Add shadows and highlights using slightly darker and lighter colors for depth.

10. Group all elements (Ctrl+G), refine alignment, and export as PNG.

**Exported file:**
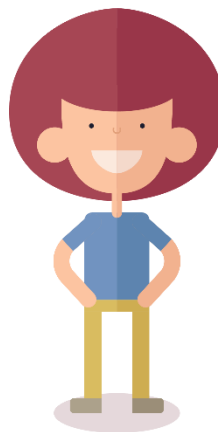
# INTRODUCTION TO ADOBE PHOTOSHOP

**Adobe Photoshop 2021** is arguably the most widely used and versatile piece of software utilized for digital designing, image manipulation, and visual effects. It offers a large set of tools that allow designers to create vibrant, engaging, and professional-standard graphics. With hands-on activities, we mastered two important techniques creating an animated banner and implementing the morphing technique both of which provided us with valuable lessons on Photoshop's advanced capabilities.

The animated banner task introduced us to frame-by-frame animation and motion graphics using the timeline feature in Photoshop. We learned how to design engaging images, apply smooth transitions, and make animations efficient for digital media such as websites and social media. This activity enhanced our understanding of how to design attention-grabbing visualizations that are brand consistent and user engaging.

Photoshop's morphing tool allowed us to experiment with how to blend two images together in a seamless way to create a fluid transition effect. Using the tools such as Liquify, Warp, and Layer Masks, we experimented with the capacity of Photoshop to warp images in order to create naturalistic and artistic transitions. Morphing is wide-reaching in digital art, advertising, and special effects, hence it is a highly significant skill for content creators and designers.

By the execution of these projects, not just did we refine our technical competency in Photoshop but also developed an in-depth understanding of the employment of digital graphics in effective idea communication. The exercises provided us with a proper foundation in animation and image alteration, making us well-armed with useful skills that can be used in graphic design, marketing, and multimedia production.

## LAB-6 CREATE AN ANIMATED BANNER.

This report documents the creation of a GIF based on Maha Shivaratri, a Hindu festival dedicated to Lord Shiva. The GIF was designed using Adobe Photoshop, utilizing the timeline feature and frame-based animation. The objective was to create a visually appealing and smooth animation representing the essence of Shivaratri, incorporating relevant imagery and effects. The process involved importing PNG images, arranging them in frames, adjusting timing, and exporting the final animation as a GIF. This report details the steps taken, tools used, and the outcome of the project.

**In Adobe Photoshop 2021, Animated Banner can be made as follows:**

Steps:

1. Open Photoshop and create a new document or open an existing one.

2. Import PNG images by going to File > Scripts > Load Files into Stack, then click Browse, select all PNG images, and click OK to load them as separate layers.

3. Open the Timeline panel by going to Window > Timeline.

4. Click the dropdown arrow in the Timeline panel, select Create Frame Animation, and click the Create Frame Animation button.

5. Convert layers to frames by clicking the Menu icon (three lines) in the Timeline panel and selecting Make Frames from Layers.

6. Adjust each frame by setting the duration (click the time below each frame) and arranging the frames in the correct order by dragging them.

7. Set the loop option to Forever at the bottom of the Timeline panel.

8. Preview the GIF by clicking the Play button.

9. Export it by going to File > Export > Save for Web (Legacy), choosing GIF as the format, adjusting size, quality, and color settings if needed, and clicking Save to select a location.

10. Your GIF is now ready.

**Exported file:**

Happy
*Maha Shivratri*
Made By: Samyak Manandhar
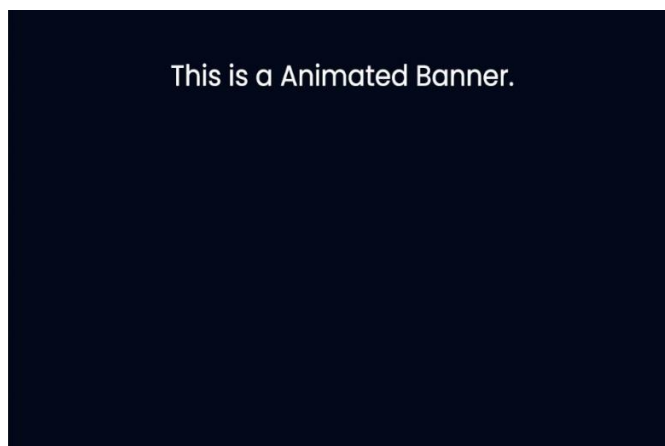
# LAB-7 MORPHING TECHNIQUE IN PHOTOSHOP.

This report covers the process of replacing the face in the *Mona Lisa* painting with another image using Photoshop. Various tools like selection, layer masking, and color adjustments were used to blend the new face seamlessly while maintaining the painting's original style.

**In Adobe Photoshop 2021, Morphing can be made as follows:**

Steps:

1.  Open Photoshop and import both the Mona Lisa painting and the target face image.

2.  Use the Lasso Tool or Pen Tool to carefully select and extract the face from the second image. Copy and paste it onto the Mona Lisa painting.

3.  Adjust the size and position using Free Transform (Ctrl + T), lowering the opacity to align the facial features accurately.

4.  Blend the edges using a layer mask and a soft brush with black and white to refine the transition between the face and the painting.

5.  Match the skin tone by adjusting the color of the second image to a slightly yellow tone as needed.

6.  Use the Healing Brush Tool to refine textures and ensure seamless integration.

7.  Apply noise and a slight Gaussian blur to give a painted effect. Adjust the Hue/Saturation to match the overall tone of the painting.

8.  Merge all layers and export the final image as a PNG file to maintain a transparent background.

**Exported file:**
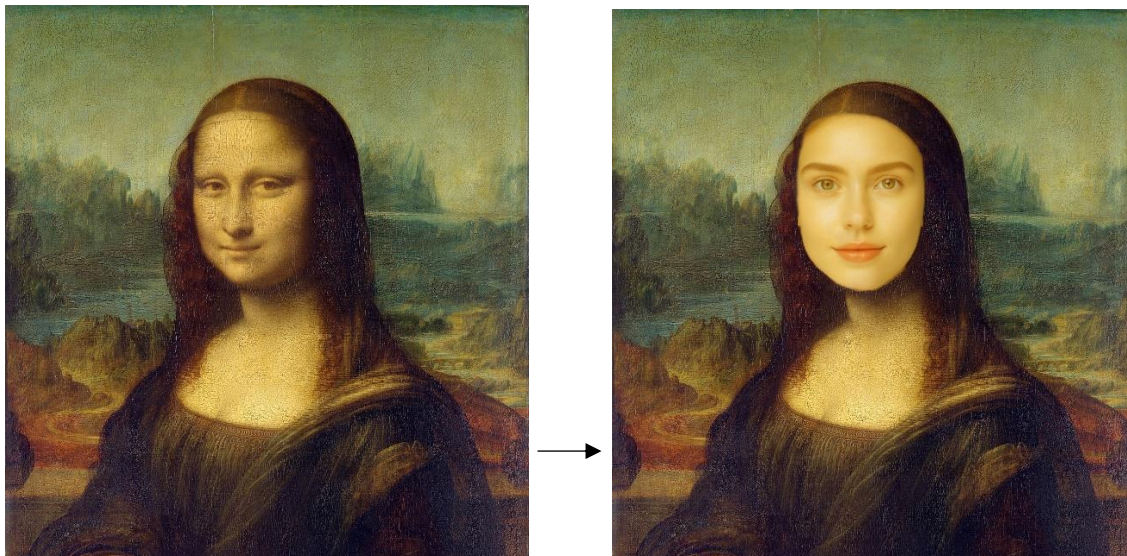
# INTRODUCTION TO MACROMEDIA FLASH 8

**Macromedia Flash 8** was a productive tool to create interactive animations, vector graphics, and multimedia applications. Through hands-on exercises, we absorbed basic animation and interactivity principles. An animation of a moving car led us to motion tweens, allowing us to tween the car smoothly along the screen. We learned to set up start and endpoint, and Flash interpolated between the in between frames. Easing options allowed us to adjust the car's acceleration and braking, making the motion look more realistic.

The bouncing ball exercise was a lead-in to easing and physics-based motion. By controlling easing curves, we simulated the effect of gravity on the path of the ball, making it bounce naturally. We experimented with squash and stretch as well to make it more realistic. This project emphasized the importance of timing and spacing in animation.

Creating an interactive button with a hover effect introduced us to ActionScript and event handling. We triggered actions when the mouse moved over the button, changing its appearance to provide user feedback. This demonstrated Flash 8 to create dynamic user interfaces that are essential to interactive menus and other multimedia elements.

These activities – the animated car, moving ball, and interactive button provided hands-on practice in animation and interactivity. They solidified our understanding on digital design and motion graphics and provided us with a good background in utilizing Flash 8 in web design, game development, and multimedia production. Although Flash 8 is no longer as widely used, these fundamental animation and interactivity principles are still utilized in today's design software.

# LAB-8 DESIGN A MOVING CAR ANIMATION.

This animation demonstrates a moving car on a road, created using Macromedia Flash 8. The car is drawn using the Pen Tool and Ellipse Tool, and motion tweening is applied between specific keyframes (Frames 1, 5, 10, 15, 20, 30, 35, 40, and 50) to animate the car's movement smoothly across the stage. The animation is then exported for use in various formats.

**In Macromedia Flash 8, moving car animation can be made as follows:**

Steps:

1.  Open Macromedia Flash 8 and go to File > New to create a new Flash Document.

2.  Select the Line Tool from the Tools panel and draw a straight line near the bottom of the stage to represent the road.

3.  Create a new layer for the car by clicking the New Layer button in the Timeline and naming it "Car."

4.  Use the Pen Tool (or P) to draw the car body and the Ellipse Tool (or O) to create the wheels. Arrange them on the stage.

5.  Select the car (body and wheels), right-click, and choose Convert to Symbol. Choose Movie Clip and name it "Car."

6.  Go to Frame 1 in the Timeline, position the car on the left side of the road, and press F6 to create a keyframe.

7.  Move to Frame 5, press F6, and move the car slightly to the right.

8.  Repeat the process for Frame 10, Frame 15, Frame 20, Frame 30, Frame 35, Frame 40, and Frame 50, creating keyframes and moving the car to the right in each.

9.  Select all layers before applying the motion tween by clicking and dragging across the layers in the Timeline.

10. Right-click between each set of keyframes (e.g., between Frame 1 and Frame 5, Frame 5 and Frame 10, etc.) and select Create Motion Tween.

11. Press Ctrl + Enter to preview the animation.

12. Go to File > Export to export the animation in your preferred format.

**Exported file:**
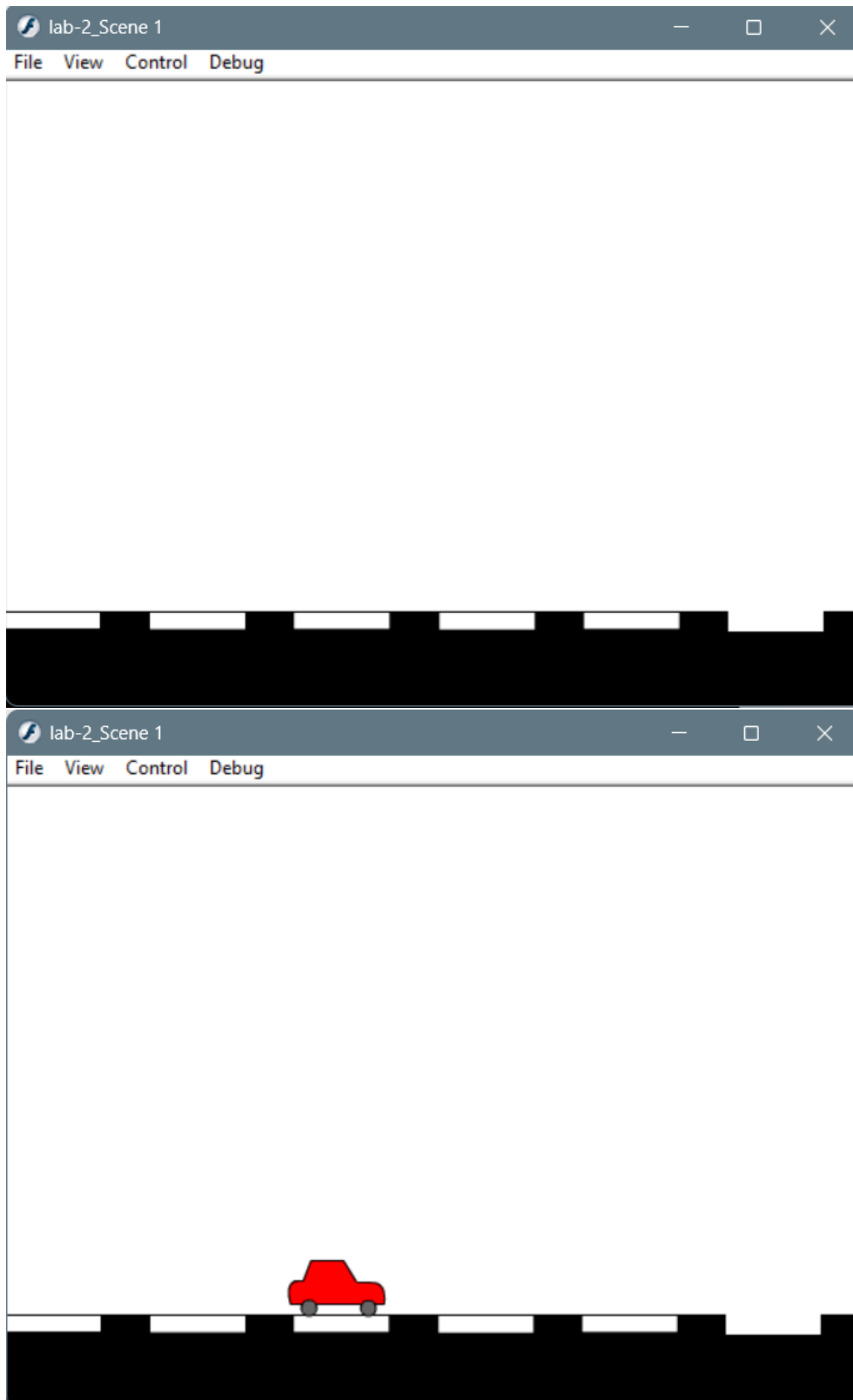
# LAB-9 CREATE A BOUNCING BALL ANIMATION.

This animation showcases a bouncing ball descending a stair-like structure. The ball is animated to drop and bounce from one step to the next, creating a smooth, realistic motion. Using Macromedia Flash 8, the animation is built by setting keyframes for each bounce and applying motion tweens to make the ball's movement smooth and fluid. The colors for the ball and stairs are set at the beginning to distinguish the two elements visually.
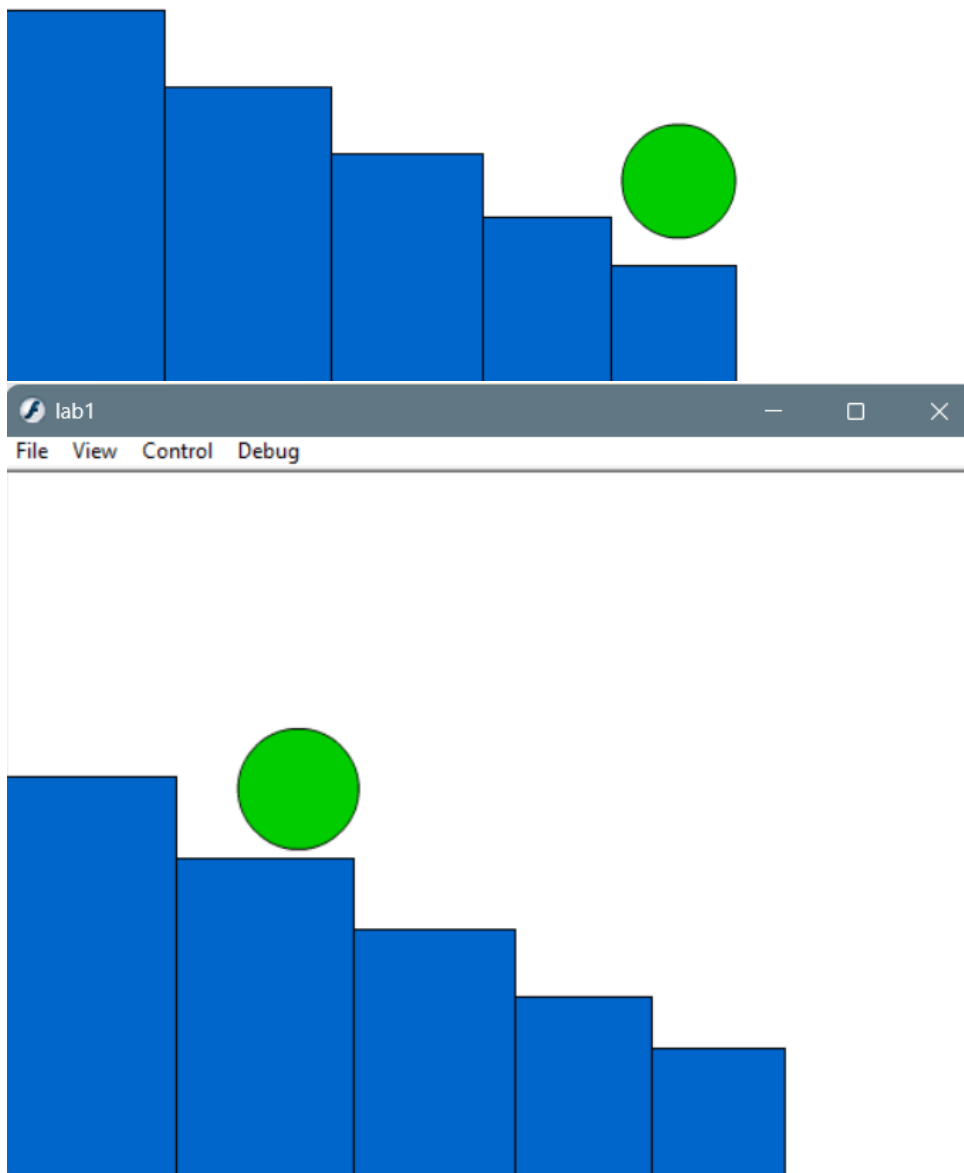
**In Macromedia Flash 8, Bouncing Ball animation can be made as follows:**

Steps:

1.  Open Macromedia Flash 8 and create a new Flash Document by going to File > New.

2.  In the Timeline, create two layers: name the first layer Stairs and the second layer Ball.

3.  Use the Line Tool in the Stairs layer to draw a stair-like structure, with each step progressively lower than the previous one.

4.  In the Ball layer, use the Ellipse Tool to create a ball shape. Position the ball above the first step of the stairs.

5.  Set the colors for the stairs and the ball at the beginning.

6.  Go to Frame 1 in both layers, position the ball above the starting point (initial position), and press F6 to create a keyframe.

7.  Move to Frame 5, press F6, and move the ball slightly down to land on the second step of the stairs.

8.  Move to Frame 10, press F6, and make the ball bounce upward, slightly above the second step.

9.  Continue the bouncing effect by adding keyframes at Frames 15, 20, and 25, adjusting the ball's position to bounce up and down each time.

10. Move to Frame 30, press F6, and make the ball bounce again, this time reaching the third step.

11. Continue to Frame 35, 40, and 45, pressing F6 at each interval, adjusting the ball's position to follow the stairs, making it bounce over each step progressively.

12. Select all layers before applying motion tweening by clicking and dragging across the layers in the Timeline.

13. Right-click between each set of keyframes (e.g., between Frame 1 and Frame 5, Frame 5 and Frame 10, etc.) and select Create Motion Tween.

14. Press Ctrl + Enter to preview the animation.

15. Go to File > Export to export the animation in your preferred format.

**Exported file:**

# LAB-10 CREATE A BUTTON WITH HOVER EFFECT.

**In Macromedia Flash 8, Button with Hover animation can be made as follows:**

Steps:

Open Flash 8 and your existing project.

1. Ensure you have 3 layers:

    o   Layer 1: Button with "Click Me" text.

    o   Layer 2: Mouse PNG image for hover effect.

    o   Layer 3: Final clicked button (red color).

2. Layer 1 (Button & Text):

    o   Draw a button using the Rectangle Tool (R).

    o   Add "Click Me" text using the Text Tool (T).

    o   Convert it into a Button Symbol (F8).

3. Layer 2 (Hover Effect):

    o   Insert the Mouse PNG image above the button.

    o   Press F6 on Frame 2 to duplicate the frame.

    o   Change the button color to red for hover effect.

    o   Adjust the mouse cursor position slightly.

4. Layer 3 (Clicked Button):

    o   Press F6 on Frame 3 to duplicate the frame.

    o   Modify the button color to final red to show it was clicked.

    o   Keep or adjust the mouse cursor position.

5. Test the Animation (Ctrl + Enter)

    o   Hover → Button turns red with the mouse image.

    o   Click → Button remains red (final state).

6. Save and Export as SWF.

**Exported file:**





SAMYAK MANANDHAR

# INTRODUCTION TO FILMORA

**Filmora** is an amicable video editing software ideal for creating engaging videos, from simple edits to complicated projects. Its intuitive design makes it friendly to both newcomers and experienced editors. We used Filmora to create an engaging highlight reel for a hypothetical game, experimenting with its functionalities to produce an engaging video.

We started off our project by importing game clips to Filmora's media library. We experimented with the timeline, cutting out clips to highlight the best action. Filmora's precise tools allowed us to select action-packed scenes for a rapid-cut reel. We used transitions to smoothly transition clips, with a smooth flow of action.

To make the experience even more personalized, we also explored Filmora's visual effects and filters. Dynamic text overlaid highlighted names and scores for athletes, while stylized transition improved key plays. Slow motion moments featured defining ones, admiration for skill and accuracy.

Sound design was crucial. Audio features in Filmora allowed us to add music and sound effects to enhance excitement. We adjusted game sounds and music to a crisp and interactive experience. We also tested voiceovers for commentaries and background information, involving the audience more.

Producing this game highlight reel provided hands-on video editing experience with Filmora. We learned to import, organize and crop clips, apply effects and transitions, and create an effective soundtrack. This laid the foundation for using Filmora to create various forms of video content, including gaming highlights and tutorials, vlogs, and short films. The skill we developed in storytelling, timing, and technical production can be applied to any video project, allowing us to create effective visual narratives.

# LAB-11 MAKE ATTRACTIVE LYRICS VIDEO OR HIGHLIGHTS OF ANY GAME.

This video highlights the key moments from a 90-minute football match, showcasing all the goals scored throughout the game. Using Filmora, the raw footage was edited by cutting out the goal sequences and arranging them in a smooth, engaging flow. The video begins with an animated title, followed by the exciting goal moments, and concludes with a custom text overlay acknowledging the creator, "Made by Samyak Manandhar."

**In Filmora, Highlights of game can be made as follows:**

Steps:

1. Open Filmora and create a new project.

2. Import the raw video from YouTube (the 90-minute football match) into the media library.

3. Drag the video onto the timeline.

4. Add a title at the beginning by selecting a title style from the Title menu and placing it on the timeline before the video.

5. Customize the title text and apply animation effects for a more attractive look.

6. Go through the video and locate all the goals. Use the split tool to cut the segments where the goals occur.

7. Remove the irrelevant parts of the video, keeping only the goal moments.

8. Arrange the goal clips in order on the timeline to create a smooth flow.

9. Add background music or sound effects by importing audio and placing it on a separate track.

10. At the end of the video, add a text overlay saying "Made by Samyak Manandhar" and adjust the style as desired.

11. Review the video to ensure everything is aligned properly.

12. Export the final video by selecting File > Export and choosing your preferred output format.

**Exported file:**

# CONCLUSION

In this multimedia design course, we utilized numerous industry-standard software, including Adobe Illustrator, Adobe Photoshop, Macromedia Flash 8, and Filmora. Each software provided various functionalities that allowed us to better comprehend graphic design, animation, and video editing.

Through laboratory exercises, we had practical experience in logo creation, poster design, vectorization, animation techniques, and video editing. The exercises not only improved our technical skills but also our creative thinking and problem-solving abilities.

The skills learned in this course can be applied throughout graphic design, digital marketing, animation, video production, and UI/UX design. With regular practice and learning higher-level features, these software tools can be utilized for professional multimedia projects.

In the future, proficiency in these software applications unlocks promising career paths in multimedia design, advertising, filmmaking, and interactive content production. With changing technology, familiarity with emerging tools and trends will be the key to success in this fast-paced industry.