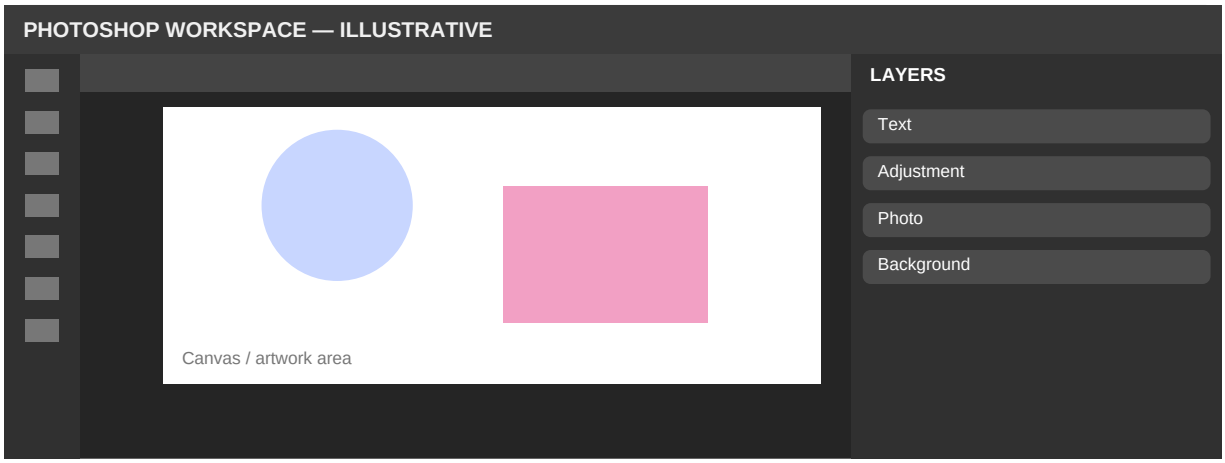
1.3 PPI, DPI and Resolution

- PPI (pixels per inch) describes pixel density in digital images.
- DPI is commonly used in printing contexts to describe dots produced by a printer.
- For screen work, think primarily in pixels and dimensions; for print, define final physical size and suitable resolution.
- Higher resolution does not automatically mean better design—use enough resolution for the intended output.

1.4 Aspect Ratio

Aspect ratio is the relationship between width and height. Examples include 1:1 for square posts, 4:5 for portrait social posts, 16:9 for widescreen video/thumbnail layouts, and 3:2 for many photographs.

1.5 Photoshop Interface



1.6 Workspace Components

- Menu Bar — File, Edit, Image, Layer, Type, Select, Filter, View, Window, Help.
- Options Bar — context-sensitive settings for the selected tool.
- Tools Panel — selection, painting, retouching, text, shape and navigation tools.
- Panels — Layers, Properties, History, Character, Paragraph, Color and more.
- Document Window — displays the current canvas.
- Status Bar — zoom and document information.

1.7 Custom Workspace

- Open required panels from Window.
- Dock, group, collapse or resize panels.
- Save a custom workspace after arranging panels.
- Keep frequently used panels visible and minimize clutter.

1.8 Document Setup

Purpose	Typical Setup
Web / Social	Pixel dimensions, RGB, screen-oriented resolution
Print	Final physical size, CMYK when required, appropriate print resolution
Large-format	Set dimensions/resolution based on viewing distance and printer requirements
Editing Master	PSD/PSB with layers retained

1.9 Canvas, Rulers, Guides and Grid

- Use Image/Canvas Size appropriately; do not confuse resizing the image with enlarging the canvas.
- Rulers help measure and align objects.
- Guides provide non-printing alignment references.
- Grid provides a visual layout system for precise placement.
- Use snapping carefully for consistent alignment.

Practical: Create three documents: a 1080×1080 px social post, an A4 print document, and a 1920×1080 px presentation graphic. Save each as a layered PSD.

MODULE 2 — Core Selection Tools & Techniques

2.1 What is a Selection?

A selection defines the pixels or area that will be affected by an edit. Selections can be added, subtracted, intersected and feathered.

2.2 Basic Selection Tools

Tool	Use
Rectangular Marquee	Rectangular selections
Elliptical Marquee	Circular/elliptical selections
Lasso	Freehand selections
Polygonal Lasso	Straight-edged selections
Magnetic Lasso	Detects edges while tracing

2.3 Smart Selection Tools

Tool	Strength
Object Selection	Detects and selects objects/regions
Quick Selection	Paint over an area to grow a selection based on edges
Magic Wand	Selects similarly colored pixels based on tolerance

2.4 Selection Controls

- New Selection replaces the current selection.
- Add to Selection combines areas.
- Subtract from Selection removes areas.
- Intersect keeps only overlapping areas.
- Feather creates a softer edge for blending.

2.5 Select Subject and Sky

Modern Photoshop versions can automatically detect a main subject or sky. After automatic selection, inspect the edge carefully and refine it rather than accepting it blindly.

2.6 Select and Mask

- Use View modes to inspect the selection edge.
- Adjust Smooth, Feather, Contrast and Shift Edge carefully.
- Use the Refine Edge Brush for hair, fur and soft boundaries.
- Output to a layer mask when you want a reversible result.

SELECTION → REFINEMENT → MASK
● Make rough selection
● Automatic/object selection
● Select and Mask → refine edge
● Output as Layer Mask
● Continue editing non-destructively

Practical: Select a person from a busy background. Compare Quick Selection, Object Selection and Select and Mask. Save the final result as a layer mask.

MODULE 3 — Layer Management & Non-Destructive Editing

3.1 Layer Basics

Layers allow artwork elements to be edited independently. Good layer organization is essential for professional files.



3.2 Creating, Grouping, Locking and Organizing

- Rename layers descriptively.
- Group related layers into folders.
- Lock layers that should not be moved or edited accidentally.
- Link layers when they need to move together.
- Use color labels for large projects.
- Keep a logical stacking order: background → image → retouch → effects → text.

3.3 Opacity vs Fill

Control	Effect
Opacity	Changes the transparency of the entire layer, including layer styles.
Fill	Changes the transparency of the layer's pixel/content while allowing some layer styles to remain fully visible.

3.4 Blending Modes

Family	Examples	Typical Effect
Darken	Multiply	Darkens using underlying pixels
Lighten	Screen	Lightens using underlying pixels
Contrast	Overlay, Soft Light	Increases contrast/interaction
Color	Color, Hue	Changes color-related properties while preserving selected tonal information

3.5 Smart Objects

Smart Objects preserve source content so transformations and certain edits can be changed without permanently altering the original embedded artwork. They are especially useful for logos, product images and repeated assets.

3.6 Smart Filters

Filters applied to Smart Objects can remain editable as Smart Filters. You can reopen filter settings, change opacity/blending, or hide the filter.

3.7 Non-Destructive Workflow

- Prefer adjustment layers instead of permanently changing pixels.
- Use layer masks instead of erasing when possible.
- Use Smart Objects for transformations and repeated assets.
- Keep an editable PSD master and export flattened copies only for delivery.

Practical: Build a poster using at least five layers, one group, one Smart Object, one adjustment layer and one layer mask.

MODULE 4 — Photo Editing, Retouching & Restoration

4.1 Healing Tools

Tool	Use
Spot Healing Brush	Quickly removes small blemishes using surrounding pixels
Healing Brush	Samples an area and blends texture/tonal information
Patch Tool	Repairs a selected area using another region
Content-Aware Fill	Generates replacement pixels based on surrounding content

4.2 Clone Stamp

Clone Stamp copies sampled pixels from one location to another. It is useful for controlled repairs, but repeated cloning can create patterns. Sample from multiple clean areas and vary brush size/opacity.

4.3 Red Eye Tool

Red Eye removes the red reflection that can appear in eyes when flash is used. Zoom in and apply the tool carefully to the affected pupil area.

4.4 Portrait Retouching

- Remove temporary blemishes while retaining natural skin texture.
- Avoid excessive smoothing that makes skin look artificial.
- Use masks and low-opacity adjustments for controlled corrections.
- Keep original facial features and proportions unless the design brief specifically requires alteration.

4.5 Frequency Separation — Concept

Frequency separation separates broad color/tone information from fine texture. A low-frequency layer carries smoother tonal information while a high-frequency layer carries texture. It requires careful setup and is best used subtly.

4.6 Dodge & Burn

Dodge lightens selected areas and Burn darkens them. Used carefully, these tools can shape form, improve dimensionality and correct uneven lighting. Work non-destructively where possible.

4.7 Liquify Filter

Liquify can distort and reshape pixels. Use it carefully and professionally; excessive warping can create unnatural edges and background distortions. Smart Objects allow a more reversible workflow.

RETOUCHING ORDER
● Clean distractions → Repair texture
● Balance tone → Dodge & Burn
● Color correction → Detail sharpening
● Zoom out → Check natural appearance

Practical: Restore an old portrait by removing scratches and dust, repairing damaged areas with Healing/Clone, then perform subtle tonal correction.

MODULE 5 — Color Correction & Adjustment Layers

5.1 Why Color Correction Matters

Color correction fixes exposure, contrast, white balance and unwanted color casts. Color grading then adds a deliberate visual mood or style.

5.2 Tonal Adjustments

Adjustment	Purpose
Levels	Controls shadows, midtones and highlights using histogram-based sliders
Curves	Precisely controls tonal relationships across the range
Exposure	Adjusts exposure-related tonal values
Brightness/Contrast	Simple overall brightness and contrast control

5.3 Histogram

A histogram shows the distribution of dark, midtone and bright pixels. It helps detect clipping and judge tonal balance.

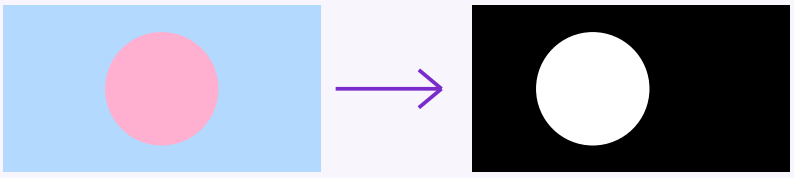
5.4 Color Tuning

Adjustment	Typical Use
Hue/Saturation	Change hue, saturation or lightness
Color Balance	Shift color in shadows, midtones and highlights
Vibrance	Boosts less-saturated colors more gently than global saturation in many cases
Selective Color	Fine-tunes specific color ranges
Gradient Map	Maps tonal ranges to selected colors for creative grading

5.5 Adjustment Masks

Adjustment layers are non-destructive. A layer mask can restrict an adjustment to a specific subject, background, sky or object.

LAYER MASK — WHITE REVEALS, BLACK HIDES



Original image

Mask thumbnail

White = reveal

Black = hide

Gray = partial reveal

5.6 Color Correction Workflow

COLOR WORKFLOW
● Correct exposure/white balance
● Set black and white points
● Balance contrast
● Correct color cast
● Apply creative grade
● Check skin tones / neutral objects

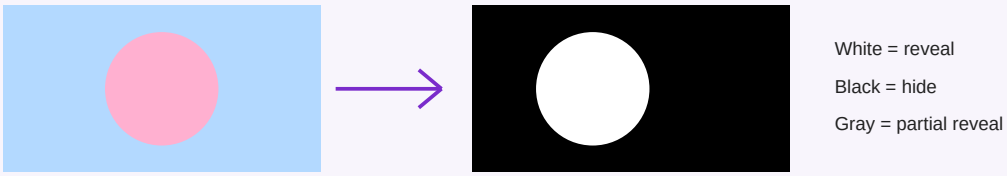
Practical: Correct an underexposed photograph using Levels or Curves, then apply a masked Color Balance adjustment only to the background.

MODULE 6 — Masking & Photo Compositing

6.1 Layer Masks

A layer mask controls which parts of a layer are visible without deleting the underlying pixels. White reveals, black hides, and gray partially reveals.

LAYER MASK — WHITE REVEALS, BLACK HIDES



Original image

Mask thumbnail

White = reveal

Black = hide

Gray = partial reveal

6.2 Masking with Brushes

- Use a soft brush for gradual transitions.
- Use a hard brush for clean edges.
- Change brush opacity/flow for subtle blending.
- Zoom in for edge work and zoom out to check the overall result.
- Use X to switch foreground/background colors when working with black and white masks.

6.3 Clipping Masks

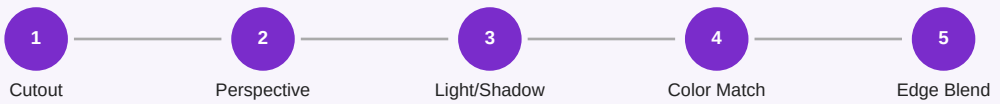
A clipping mask restricts one layer's visible content to the non-transparent shape of the layer below it. It is useful for placing photos inside text, shapes and frames.

CLIPPING MASK EXAMPLE
● Shape / text layer = container
● Photo layer above = clipped content
● Visible photo follows the container shape
● Move/scale photo without changing the container

6.4 Compositing

Compositing combines multiple images into one believable scene. The most important factors are perspective, scale, lighting, shadows, color, depth of field and edge quality.

REALISTIC COMPOSITING CHECKLIST



6.5 Matching Light and Shadows

- Identify the direction and softness of the source light.

- Create contact shadows where objects touch surfaces.
- Use Multiply layers for many shadow-building situations.
- Use Screen/Lighten carefully for highlights.
- Match contrast and color temperature between source images.

6.6 Perspective Matching

Use Transform, Distort, Perspective or Warp to align an inserted object with the scene's geometry. Check horizon lines and vanishing-point relationships.

6.7 Color Matching

Use Curves, Color Balance, Hue/Saturation, Selective Color or Camera Raw adjustments to bring inserted elements into the same visual environment.

Practical: Create a composite where a product is placed into a room. Add a realistic contact shadow, match color temperature, correct perspective and blend the edges.

MODULE 7 — Typography & Vector Tools

7.1 Typography Basics

Typography is the design and arrangement of type. Good typography uses hierarchy, readability, spacing and alignment to guide the viewer.

7.2 Character and Paragraph Controls

Property	Meaning
Font / Size	Typeface and scale
Leading	Vertical spacing between lines
Tracking	Overall spacing across a range of letters
Kerning	Spacing between individual letter pairs
Alignment	Left, center, right, justified paragraph alignment

7.3 Type on a Path

Text can follow a vector path, allowing curved labels, badges and circular typography. Create the path first, then select the Type tool and click the path.

7.4 Warp Text

Warp Text bends type using preset transformations. Use it carefully to maintain legibility and brand consistency.

7.5 Text to Shape / Outlines

Converting text to shapes turns letters into vector outlines. This can be useful for custom logo-like treatment, but the editable text content is no longer retained in the same way. Keep a duplicate editable text layer before conversion.

7.6 Pen Tool

The Pen Tool creates precise paths using anchor points and handles. Paths can be used for selections, masks, vector shapes and accurate cutouts.

Concept	Explanation
Anchor Point	Controls a corner/curve location
Handle	Controls curve direction and smoothness
Path	A sequence of vector points
Shape	A filled/stroked vector object
Work Path	Temporary editable path used for selections/cutouts

7.7 Custom Shape Tool & Path Operations

- Combine shapes to create icons and badges.
- Subtract shapes to cut areas.
- Intersect shapes to retain overlapping regions.
- Use Align and Distribute for precise layout.

Practical: Design a simple event poster using two font families, a clear hierarchy, type on a path and at least two vector shapes.

MODULE 8 — Layer Styles & Special Effects

8.1 Layer Style Effects

Effect	Typical Use
Drop Shadow	Creates depth/separation
Inner Shadow	Adds depth inside edges
Outer Glow	Creates a glowing halo
Inner Glow	Adds glow within edges
Bevel & Emboss	Creates dimensional edge highlights
Stroke	Adds an outline
Color Overlay	Applies a solid color
Gradient Overlay	Applies a gradient
Pattern Overlay	Fills with a pattern

8.2 Using Effects Professionally

- Keep effects consistent across related elements.
- Use subtle shadows that match scene lighting.
- Avoid stacking too many effects without a design reason.
- Save styles when a project requires repeated treatment.

8.3 Blur Gallery

Blur tools can simulate depth of field and motion effects. Gaussian Blur provides general softening; Motion Blur suggests directional movement; Radial Blur can suggest spin/zoom; Tilt-Shift can simulate a miniature-like depth effect.

8.4 Sharpening

Sharpening enhances edge contrast. Apply it after resizing when appropriate, and avoid excessive sharpening that creates halos or noisy edges.

8.5 Camera Raw Filter

Camera Raw Filter provides controls for exposure, contrast, highlights, shadows, white balance, texture, clarity, color and other photographic adjustments. Applying it to a Smart Object can preserve editability.

8.6 Brushes

- Choose brush size, hardness, opacity and flow.
- Use spacing, shape dynamics, scattering, texture and transfer for custom brush behavior.
- Create and save custom brushes when a repeatable texture is needed.
- Install external brushes only from trusted sources and keep project backups.

BRUSH SETTINGS
● Size / Hardness → edge control
● Opacity → maximum transparency level
● Flow → rate of paint application
● Spacing → distance between brush tips

- Dynamics → size/angle/roundness variation

Practical: Create a glowing text effect using a gradient, outer glow and drop shadow. Then build a custom texture brush and apply it subtly to a poster background.

MODULE 9 — Graphic Design Projects & Real-World Deliverables

9.1 Social Media Graphics

Deliverable	Design Focus
Instagram Post	Strong hierarchy, square/portrait layout, readable type
Instagram Story	Vertical composition, safe areas and clear CTA
YouTube Thumbnail	High contrast, large readable headline and focal subject
Web Ad Banner	Fast visual communication and clear call-to-action
Social Banner	Wide layout, balanced text/image placement

9.2 Print Media

Print projects require physical dimensions, bleed, margins/safe areas, suitable resolution and the correct color workflow specified by the printer.

Project	Important Considerations
Business Card	Bleed, trim, safe margin, contact hierarchy
Flyer	Headline, offer, CTA, imagery, readable details
Poster	Viewing distance, typography scale, focal point
Book Cover	Trim size, spine where applicable, front/back layout
Brochure Cover	Fold/trim guides, panels, margins, hierarchy

9.3 Bleed and Safe Margin

PRINT LAYOUT
● Bleed → artwork extends beyond trim
● Trim → final cut line
● Safe Area → keep important text/logos inside
● Fold Guides → align brochure/booklet content

9.4 Branding & Visuals

- Keep logo proportions correct.
- Use consistent brand colors and typography.
- Create mockups to preview logos or packaging in realistic contexts.
- Maintain editable master files.
- Do not stretch or distort logos.

9.5 Photo Manipulation

Photo manipulation combines editing, retouching, compositing and visual effects to create a deliberate image. Maintain believable lighting, perspective, edges and color relationships.

9.6 Poster Artwork Workflow

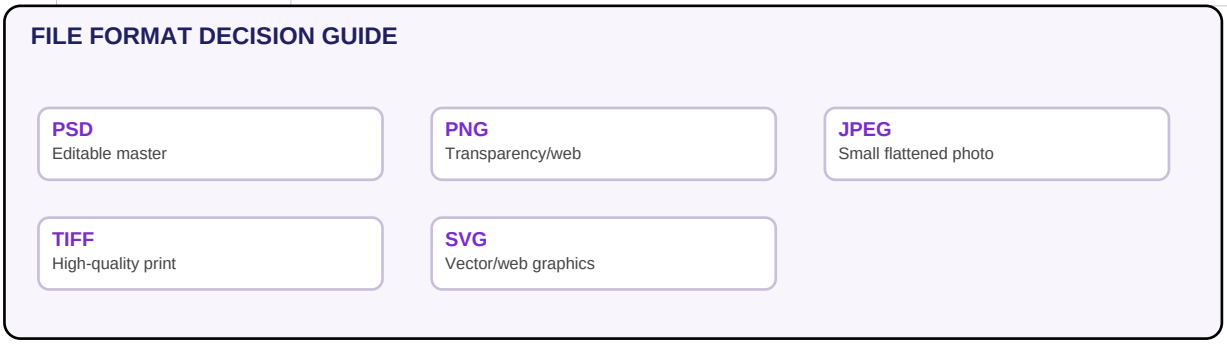
PROFESSIONAL PROJECT WORKFLOW
● Brief → Research → Moodboard
● Sketch → Document Setup → Assets
● Design → Retouch → Typography → Effects
● Review → Proof → Corrections → Export

Practical Projects: Create an Instagram campaign set, YouTube thumbnail, A4 flyer, business card, product mockup and photo-manipulation poster.

MODULE 10 — Exporting, File Formats & Workflow Automation

10.1 File Formats

Format	Best Use / Notes
PSD	Primary editable Photoshop document with layers
PSB	Large-document format for very large files
PNG	Web graphics and transparency
JPEG	Compressed flattened photographs / web images
SVG	Vector graphics/web assets where supported by workflow
GIF	Simple animation or limited-color graphics
TIFF	High-quality image/print workflows; can preserve substantial information



10.2 Save vs Export

- Save/Save As keeps an editable working file such as PSD.
- Export creates a delivery asset in the required format and dimensions.
- Keep the master PSD/PSB separate from final delivery files.

10.3 Export As

Export As is useful for choosing file type, dimensions, quality and transparency for delivery assets. Check the exported file visually before sending it to a client or publishing it.

10.4 Quick Asset Extraction

When a document contains multiple graphics for web or social use, export individual assets at the required sizes and formats. Use meaningful filenames and organized folders.

10.5 Actions

Actions record a sequence of commands so repetitive tasks can be replayed. Typical uses include resizing, sharpening, converting color modes, adding a watermark, or saving a standardized version.

10.6 Batch Processing

Batch processing applies an Action or workflow to many files. Test the action on a small sample before processing an entire folder.

BATCH WORKFLOW
● Prepare source folder
● Record/test Action
● Choose File → Automate → Batch

- Select source and destination
- Run → inspect output → archive

10.7 Cloud / Library Synchronization

Cloud document or library features can help synchronize assets and work across supported Adobe workflows. Availability and behavior depend on the Photoshop/Creative Cloud version and account.

10.8 Professional File Organization

- 01_Source — original photographs/assets
- 02_Working — PSD/PSB masters
- 03_Links — external assets
- 04_Proof — review versions
- 05_Final — approved exports
- 06_Archive — completed project

Practical: Record an Action that resizes a photograph, applies controlled sharpening and saves a JPEG copy. Test it on three images, then run a batch on a larger folder.

COMPLETE WORKFLOW — FROM BRIEF TO FINAL DESIGN

10-STEP PROFESSIONAL WORKFLOW
● 1. Understand the brief and target audience
● 2. Choose document size, resolution, color mode and aspect ratio
● 3. Collect and organize source assets
● 4. Build a clean layer structure
● 5. Make selections and masks
● 6. Retouch and correct color
● 7. Compose imagery and typography
● 8. Apply effects and perform quality control
● 9. Save editable PSD/PSB master
● 10. Export the correct final formats and inspect them

DESIGN QUALITY CHECKLIST

- Is the document the correct size and aspect ratio?
- Is the color mode suitable for the final output?
- Are important elements inside safe margins?
- Are layers named and organized?
- Are masks and adjustments non-destructive where practical?
- Are edges clean?
- Do lighting, perspective and shadows match in composites?
- Is typography readable and aligned?
- Are colors consistent with the design brief?
- Has the final export been checked at actual viewing size?

ADCA / GRAPHIC DESIGN PRACTICAL PROJECTS

Project	Skills Practiced
Social Media Campaign	Layout, typography, color, export
Product Advertisement	Cutout, retouching, compositing, effects
Business Card	Typography, vector shapes, print setup
A4 Promotional Flyer	Layout, images, masks, print margins
YouTube Thumbnail	Composition, contrast, typography
Photo Restoration	Healing, cloning, tonal correction
Surreal Composite Poster	Selections, masks, perspective, color matching
Brand Mockup	Smart Objects, layer styles, export

VIVA / EXAMINATION QUESTIONS

1. What is the difference between RGB and CMYK?
2. What is PPI? How is it different from DPI?
3. What is aspect ratio? Give two examples.
4. What is the purpose of the Options Bar?
5. What is a layer? Why should layers be organized?
6. What is the difference between Opacity and Fill?
7. What is a Smart Object?
8. What is a Smart Filter?
9. What is the difference between a layer mask and erasing?
10. What is a clipping mask?
11. When would you use the Clone Stamp Tool?
12. What is the purpose of Content-Aware Fill?
13. What is Frequency Separation used for?
14. What is Dodge & Burn?
15. What is Liquify?
16. What is an Adjustment Layer?
17. What is the difference between Levels and Curves?
18. What does Select and Mask do?
19. What is tracking? What is kerning?
20. What is the Pen Tool used for?
21. What are vector paths and shapes?
22. Name common Layer Style effects.
23. What is Camera Raw Filter?
24. What is the difference between PSD and JPEG?
25. What is TIFF commonly used for?
26. What is bleed in print design?
27. What is a Photoshop Action?
28. What is batch processing?
29. Why should the master PSD be preserved?
30. What should you check before delivering a final design?

FINAL REVISION SHEET

Setup: Brief → Size → Resolution → Color Mode → Guides.
Selection: Marquee/Lasso → Object/Quick/Magic Wand → Select Subject → Select and Mask.
Layers: Groups → Masks → Blending Modes → Smart Objects → Smart Filters.
Retouch: Healing → Clone → Content-Aware → Dodge & Burn → Liquify.
Color: Levels → Curves → Hue/Saturation → Color Balance → Selective Color → Gradient Map.
Composite: Cutout → Perspective → Light/Shadow → Color Match → Edge Blend.
Design: Typography → Pen/Shapes → Layer Styles → Brushes → Filters.
Delivery: PSD/PSB Master → Export → Inspect → Archive.

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