**Name:Utsav Kumar (2021BCSE07AED506)**

**TASK 1:**Project Documentation: Responsive Landing Page Design for Educational Institution

**1. Project Overview**

**Objective**

* To design a visually appealing, user-friendly, and responsive landing page for an educational institution.
* The design will be optimized for different screen sizes, including desktop, tablet, and mobile devices.

**2. Tools and Software**

**Design Tools**

* **Figma**: For creating wireframes, site maps, and the final design.
* **Adobe Photoshop**: For advanced image editing and graphic creation.
* **Adobe Illustrator**: For vector graphics and icon creation.

**3. Design Process**

**Step 1: Initial Design Creation**

* **Screen Sizes**:
  + Desktop: 1920x1080 pixels
  + Tablet: 768x1024 pixels
  + Mobile: 375x667 pixels
* **Design Elements**:
  + **Header**: Institution’s logo, navigation menu, and a call-to-action button (e.g., “Apply Now”).
  + **Hero Section**: A prominent banner image, a headline, a subheadline, and a primary call-to-action button (e.g., “Explore Courses”).
  + **About Section**: A brief overview of the institution with relevant images or icons.
  + **Courses Section**: Highlights of key courses or programs offered, using images, icons, and brief descriptions.
  + **Testimonials Section**: Quotes from students or faculty members, with images to build credibility.
  + **Contact Section**: Contact information, a contact form, and possibly a map.
  + **Footer**: Important links, social media icons, and contact details.

**Step 2: Exporting Design Assets**

* **Slicing Design Elements**:
  + Use slicing tools to divide the design into individual assets like buttons, icons, and images.
* **Export Formats**:
  + **Images**: PNG, JPEG (optimized for web)
  + **Icons**: SVG (for scalability)
  + **Backgrounds**: JPEG (for larger images) or PNG (for images with transparency)

**Step 3: Wireframes and Site Map**

* **Wireframes**:
  + **Low-Fidelity Wireframes**: Provide a basic layout structure for desktop, tablet, and mobile views. Use placeholders for images and text to focus on layout and user flow.
  + **High-Fidelity Wireframes**: Include more detail, with actual images, text, and design elements, providing a more realistic preview of the final design.
* **Site Map**:
  + **Structure**: Illustrates the hierarchy and organization of pages and sections within the landing page.
  + **User Flow**: Details how users will navigate from one section to another.

**Step 4: UX/UI Principles**

* **Consistency**:
  + Maintain a consistent color scheme, typography, and button styles across the page.
* **Visual Hierarchy**:
  + Prioritize content to guide the user's attention to key areas, such as the call-to-action buttons and important information.
* **Accessibility**:
  + Ensure all text is legible with sufficient color contrast.
  + Include alternative text for images.
  + Ensure the design is navigable by keyboard and accessible to screen readers.
* **Responsive Design**:
  + Adopt a mobile-first approach, ensuring the layout adapts fluidly to different screen sizes.

**Step 5: Web Standards and Accessibility Guidelines**

* **Semantic HTML**:
  + Ensure the design can be implemented with semantic HTML, which enhances both SEO and accessibility.
* **CSS Frameworks**:
  + Consider using frameworks like Bootstrap or Tailwind CSS for easier implementation of responsive designs.
* **Accessibility Standards**:
  + WCAG 2.1 (Web Content Accessibility Guidelines) compliance, including features like keyboard navigation, screen reader compatibility, and sufficient contrast ratios.

**4. Design Deliverables**

**1. Final Design Files**

* **Figma/Photoshop/Illustrator Files**: The source files for the final design.
* **Exported Assets**: Optimized images, icons, and other graphical elements.

**2. Wireframes**

* **Low-Fidelity Wireframes**: Initial structural layout without detailed design elements.
* **High-Fidelity Wireframes**: Detailed layouts with actual content and design elements.

**3. Site Map**

* A diagram illustrating the page structure and user navigation flow.

**4. Style Guide**

* **Colors**: Hex codes for primary, secondary, and accent colors.
* **Typography**: Fonts used, along with sizes and weights.
* **Button Styles**: Button colors, hover states, and border-radius specifications.

**5. Implementation Considerations**

**Development Handoff**

* **HTML/CSS**: Ensure that the design can be effectively translated into HTML/CSS.
* **JavaScript**: Highlight areas where JavaScript may be needed for interactivity (e.g., smooth scrolling, form validation).
* **CMS Integration**: If applicable, consider how the design will be integrated into a Content Management System (CMS).

**6. Testing and Validation**

**Responsiveness Testing**

* **Tools**: Use tools like Chrome DevTools, BrowserStack, or responsive design testing websites to ensure the page adapts correctly to various screen sizes.

**Accessibility Testing**

* **Tools**: Use tools like WAVE, Axe, or Lighthouse to test accessibility compliance.

**User Testing**

* Conduct usability testing with a small group of users to gather feedback on the design's usability and effectiveness.

**7. Final Review and Launch**

**Feedback Incorporation**

* Review feedback from stakeholders and users, making necessary adjustments to the design.

**Launch Preparation**

* Prepare the design files and assets for handoff to developers for coding and integration.