DecorVista ek web application hai jise ghar ke interior design industry ke liye banaya gaya hai. Yeh homeowners aur peshawar interior designers dono ki zarooraton ko poora karta hai.

**1. Project Ka Maqsad (Purpose of the Project)**

* **Pas Manzar aur Zarurat (Background and Necessity):** Interior design industry mein izafa hua hai, lekin riwayati tareeqon mein waqt lagta hai aur unki rasai mehdood hoti hai. Isliye, online comprehensive interior design services faraham karne ke liye ek digital platform ki zarurat hai.
* **Tajweez Shuda Hal (Proposed Solution):** DecorVista ek comprehensive web application hai jo ek wasee product catalog, inspiration galleries, aur peshawar mashwarat ke options faraham karta hai.
* **Dastavez Ka Maqsad (Purpose of the Document):** Yeh dastavez web application ki development ke liye requirements ko outline karta hai, jo development team ke liye ek rahnuma ke taur par kaam karta hai aur sabhi stakeholders ke liye project ke maqasid aur functionalities ki wazeh samajh ko yaqeeni banata hai.
* **Project Ka Daira (Scope of the Project):** DecorVista ek responsive aur purkashish web application hoga jiska istemal desktop aur mobile dono devices par modern browsers ke zariye kiya ja sakta hai. Users designer profiles, product catalog browse kar sakte hain, products ko cart mein add kar sakte hain, aur total amount ki jaanch kar sakte hain. Taham, payment aur delivery functionality is project ke daire se bahar hain.

**2. Bandishen (Constraints)**

* **Browser Mutabqat (Browser Compatibility):** Chrome, Firefox, Safari, aur Edge jaise bade web browsers ke sath mutabqat honi chahiye.
* **Responsiveness:** Desktop aur mobile devices dono par ek behtareen user experience faraham karna chahiye.
* **Karkardagi (Performance):** Tez load time hona chahiye aur high traffic ko asarandaz tareeqe se handle karna chahiye, jismein virtual designs jaisi real-time features bina kisi numaya lag ke perform karti hain.

**3. Functional Requirements (Karyatmak Aavashyaktaen)**

**Users Ke Liye (For Homeowners):**

* **User Registration aur Login Authentication:** Naye accounts banane ki ijazat deta hai. Registration ke dauran naam, email ID, contact number aur username jaise tafseelat faraham karne honge.
* **Inspiration Gallery:** Interior design ki high-quality images dikhata hai, jinhe room type, theme/style aur color scheme ke mutabiq categorize kiya jata hai. Users pasandeeda images ko apni profiles mein save kar sakte hain.
* **User Dashboard:**
  + **Design Management:** Save kiye gaye designs ko dekhen, edit karen aur manage karen.
  + **Activity Overview:** User ki haal ki activities, save kiye gaye items aur aane wale mashwarat ka overview.
  + **Notifications:** Naye design inspirations, product updates aur mashwarat ke reminders ke liye alerts.
* **Product Catalog:**
  + **Integrated Product Listings:** Mukhtalif brands aur retailers se furniture, decor items aur materials ka ek catalog.
  + **Search aur Filter:** Category, brand, price, style wagaira ke mutabiq products ko talash karne ke liye advanced search functionality aur filters.
  + **Product Details:** Dimensions, materials aur price samet har product ke bare mein tafseeli malumat.
  + **Product Selection, Purchase aur Cart Management:** Users ko products select karne, unhe cart mein add karne, agar zarurat ho to unhe cart se delete karne aur checkout ke liye aage badhne ke qabil banata hai. Asal payment aur delivery is application ke daire se bahar hain.
  + **Third Party Purchase Links:** Partner websites se products kharidne ke liye direct links.
* **Peshawar Mashwarat (Professional Consultation):**
  + **Booking System:** Users peshawar interior designers ke sath mashwarat book kar sakte hain.
  + **Designer Profiles Dekhen:** Users available designers ke profiles unke portfolios aur reviews ke sath dekh sakte hain.
  + **Scheduling Dekhen:** Users available time slots dekh sakte hain aur appointments schedule kar sakte hain.
  + **Mashwarat Review Add Karen:** Users hasil kiye gaye mashwarat ke liye reviews faraham kar sakte hain.
* **User Reviews:** Users products aur designers ke liye reviews faraham karne ke qabil hone chahiye.

**Admin Features aur Functionality:**

* Admins user accounts ko manage karne ke qabil hone chahiye, jismein accounts ko modify karna ya delete karna shamil hai.
* Admins inspiration gallery mein content add, edit aur delete karne ke qabil hone chahiye.
* Admins user activity aur site performance par reports generate karne ke qabil hone chahiye.

**Blog:**

* Interior design trends, tips aur DIY ideas se mutaliq articles aur posts yahan dikhaye ja sakte hain. Inhe Admin manage kar sakta hai.

**Mera Account (My Account):**

* User profile management.
* Subcategories: Profile settings, mere designs, save kiye gaye items, mere mashwarat, order history.

**Peshawar Designers Ke Liye (For Professional Designers):**

* **Registration aur Profile Setup:** Interior designers apne peshawar email address ka istemal karke sign up kar sakte hain, apni personal aur professional information bhar kar ek comprehensive profile bana sakte hain, apne portfolio mein pichle projects ki images aur descriptions upload kar sakte hain, aur client mashwarat ke liye apni availability set kar sakte hain.
* **Mashwarat Manage Karna:** Designers mashwarat ke liye apne available time slots set karte hain. Clients in slots ko dekh sakte hain aur directly web application ke zariye appointments book kar sakte hain. Peshawar interior designers un appointments ko bhi cancel kar sakte hain jinhe woh poora karne mein qasir hain.
* **Clients Ke Sath Interaction:** Designer ko ek booking notification milti hai aur woh client ke ibtedai project brief ki review karta hai.
* **Reviews Hasil Karna:** Client designer ki profile par ek review faraham karta hai. Designer review ka jawab de sakta hai aur apni services ko behtar banane ke liye feedback ka istemal kar sakta hai.

**Dono Tarah Ke Users Ke Liye Aam Features (Common Features for Both User Types):**

* "Hamare Bare Mein" aur "Hamse Rabta Karen" pages web application ka hissa hone chahiye.
* Agar lagu ho to GPS/Geolocation functionality lagu karen.

**4. Non-Functional Requirements (Ghair-Karyatmak Aavashyaktaen)**

* **Istemal Ke Liye Mehfooz (Safe to Use):** Application ke natije mein koi malicious downloads ya ghair-zaruri file downloads nahi hone chahiye.
* **Rasai (Accessibility):** Application mein wazeh aur padhne mein asaan fonts, user-interface elements aur navigation elements hone chahiye.
* **User-Friendliness:** Application ko wazeh menus aur deegar elements ke sath navigate karna asaan hona chahiye aur samajhne mein asaan hona chahiye.
* **Amal Pazeeri (Operability):** Application qabil-e-aitemad aur kargar hona chahiye.
* **Karkardagi (Performance):** Application ko speed aur throughput ke zariye high performance value dikhana chahiye. Saade lafzon mein, application mein kam se kam load time aur smooth page redirection hona chahiye.
* **Scalability:** Application architecture aur infrastructure ko badhte hue user traffic, data storage aur feature expansions ko handle karne ke liye design kiya jana chahiye.
* **Security:** Application ko munasib security measures lagu karne chahiye jaise authentication. Maslan, sirf registered users hi kuch features tak rasai hasil kar sakte hain.
* **Dastiyabi (Availability):** Application kam se kam downtime ke sath 24/7 dastiyab hona chahiye.
* **Mutabqat (Compatibility):** Application latest browsers aur mukhtalif devices ke sath mutabqat hona chahiye.

**5. Interface Requirements (Interface Aavashyaktaen)**

* **Hardware:**
  + Intel Core i5/i7 Processor ya is se behtar
  + 8 GB RAM ya is se behtar
  + Color SVGA
  + 500 GB Hard Disk space
  + Mouse
  + Keyboard
* **Software (Istemal Ki Jane Wali Technologies):**
  + **IDE:** Platform ke mutabiq munasib IDE.
  + **Frontend:** HTML5, CSS3, Bootstrap (optional), JavaScript, Figma Toolkit, jQuery, AngularJS/Angular 9 ya is se behtar/ReactJS 18 ya is se behtar, aur XML.
  + **Backend:**
    - Java 16 ya is se behtar, Java EE 7 ya is se behtar/Jakarta EE 9 ya is se behtar, Apache NetBeans IDE/Eclipse latest version, Apache Tomcat 10.0 ya is se behtar, Glassfish 6.0 ya is se behtar, aur mutaliqa libraries.
    - **Ya** C# 7.2 ASP.NET MVC aur ASP.NET MVC Core (optional), Visual Studio 2019 ya is se behtar ke sath.
    - **Ya** PHP 7.0 ya is se behtar Apache Web Server aur Laravel Framework Homestead (optional) ke sath.
    - **Ya** Python 3.0 ya is se behtar PyCharm IDE, Django/Flask framework ke sath.
    - Local hosting ke liye (optional): XAMPP latest version.
  + **Database:** MySQL 8.0 ya is se behtar/SQL Server 2019 ya is se behtar.

**6. Database Design**

* **Data Dictionary:** Users, UserDetails, InteriorDesigner, Products, Consultations, Reviews, Categories, wagaira.
* **Relations (Rishtey):**
  + Users se Designs: One-to-Many (Ek user kai designs bana sakta hai).
  + Users se Consultations: One-to-Many (Ek user kai mashwarat book kar sakta hai).
  + Users se Reviews: One-to-Many (Ek user kai reviews faraham kar sakta hai).
  + Products se Reviews: One-to-Many (Ek product ke kai reviews ho sakte hain).
  + Designers se Reviews: One-to-Many (Ek designer ke kai reviews ho sakte hain).
  + Products se Categories: Many-to-Many (Kai products kai categories se talluq rakh sakte hain).

**7. Project Deliverables (Project Ki Hawalgi)**

* **Project Submission:** Ek mukammal dastavez ke sath project ko design aur banayen.
* **Dastavez Mein Shamil Hain:**
  + Masla ki tareef (Problem Definition)
  + Design specifications
  + Aarekh (Diagrams) jaise mukhtalif activities ke liye Flowcharts, Data Flow Diagrams
  + Database design
  + Project mein istemal kiya gaya test data
  + Project installation instructions (agar koi ho)
  + Password ke sath sabhi tarah ke users ke liye user credentials
* **File Submission:** Consolidated project ko ek zip file ke taur par ReadMe.doc file ke sath pesh kiya jana chahiye jismein assumptions (agar koi ho) aur database aur table definitions wali SQL script files (.sql) shamil hon.
* **Sitemap:** Web application ke flow ko samajhne mein users ki madad karne ke liye, ek Sitemap banayen aur ise apne web application ke home page par add karen.
* **Video Demonstration:** Web application ke kaam karne ka muzahira karne wala ek video (.mp4 file) jama karna lazmi hai, jismein project ki sabhi functionalities shamil hon.

**DecorVista Web Application Ka Roadmap**

**Phase 1: Planning aur Requirement Analysis (Mansubabandi aur Zarurat Ka Tajziya)**

* **Maqsad:** Project ke bunyadi maqasid, daira (scope), aur zaruriyat ko wazeh karna.
* **Aham Kaam:**
  + **Project Charter/Vision Document:** Project ka maqsad, ahdaf, aur bunyadi tasawwur tayyar karna.
  + **Stakeholder Identification:** Tamam mutaliqa afraad (homeowners, designers, admins, developers) ki shanakht karna.
  + **Detailed Requirement Gathering:** Functional aur Non-Functional requirements ko tafseel se jama karna (jaisa ke SRS document mein bayan kiya gaya hai).
  + **Scope Definition:** Project ke dairoon ko wazeh karna (kya shamil hai aur kya nahi, maslan payment gateway is waqt shamil nahi).
  + **Feasibility Study:** Takneeki, maliyati, aur operationally project ki qabil-e-amal hone ka jaiza lena.
  + **Technology Stack Finalization:** Frontend, Backend, Database, aur dusri zaroori technologies ka intikhab karna.

**Phase 2: Design aur Architecture (Naqsha aur Bunyadi Dhancha)**

* **Maqsad:** Application ke dhancha (structure), user interface, aur database design ko tayyar karna.
* **Aham Kaam:**
  + **System Architecture Design:** Application ke mukhtalif components (frontend, backend, database, APIs) aur unke darmiyan rabte ka dhancha banana.
  + **Database Design:** Entities, attributes, aur relationships (ERD) ko tafseel se design karna, jismein Users, Products, Consultations, Reviews, wagaira shamil hain.
  + **UI/UX Design (Wireframes & Mockups):** User interface (UI) aur user experience (UX) ke liye wireframes, mockups, aur prototypes banana. Ismein Inspiration Gallery, Product Catalog, User Dashboard, aur Designer Profile ke layouts shamil hain.
  + **Flow Diagrams:** User journeys (homeowner aur designer) ke liye flow diagrams banana.
  + **API Design:** Frontend aur Backend ke darmiyan data exchange ke liye APIs (Application Programming Interfaces) ko design karna.

**Phase 3: Development (Tameer)**

* **Maqsad:** Design kiye gaye dhancha aur requirements ke mutabiq application ko code karna.
* **Aham Kaam:**
  + **Frontend Development:**
    - User Registration aur Login pages banana.
    - Inspiration Gallery aur uski categorization.
    - Product Catalog (search, filter, product details).
    - User Dashboard aur My Account sections.
    - Professional Consultation booking interface.
    - About Us aur Contact Us pages.
    - Responsive design ka implementation.
  + **Backend Development:**
    - API endpoints banana (user management, product data, consultation scheduling, reviews).
    - Business logic ka implementation.
    - Authentication aur Authorization mechanisms.
    - Data validation aur error handling.
  + **Database Implementation:**
    - Database schema banana (tables, relationships).
    - Initial data population (agar zaroori ho).
  + **Admin Panel Development:**
    - User management features.
    - Content management for Inspiration Gallery aur Blog.
    - Reporting features.
  + **Integration:** Frontend aur Backend APIs ko integrate karna.

**Phase 4: Testing (Jaanch)**

* **Maqsad:** Application mein bugs aur errors ko talash karna aur yeh yaqeeni banana ke yeh requirements ke mutabiq kaam kar rahi hai.
* **Aham Kaam:**
  + **Unit Testing:** Har component aur module ki alag alag jaanch karna.
  + **Integration Testing:** Mukhtalif modules ke darmiyan rabte ki jaanch karna.
  + **Functional Testing:** Har functional requirement ki jaanch karna (maslan, kya user register kar sakta hai, kya product search kaam kar raha hai).
  + **Non-Functional Testing:** Performance, security, scalability, aur compatibility ki jaanch karna.
  + **User Acceptance Testing (UAT):** End-users (homeowners, designers) se application ki jaanch karwana aur unka feedback lena.
  + **Bug Fixing:** Talash kiye gaye bugs ko theek karna.

**Phase 5: Deployment aur Maintenance (Tanzeeb aur Dekhbhal)**

* **Maqsad:** Application ko live karna aur uski mustaqil dekhbhal ko yaqeeni banana.
* **Aham Kaam:**
  + **Deployment:** Application ko production server par deploy karna.
  + **Monitoring:** Application ki performance, security, aur availability ko mustaqil monitor karna.
  + **Bug Fixing (Post-Deployment):** Live environment mein paida hone wale bugs ko theek karna.
  + **Updates aur Enhancements:** User feedback aur naye requirements ki bunyad par application mein updates aur naye features shamil karna.
  + **Documentation Finalization:** Tamam project documentation ko mukammal karna (jismein SRS, design documents, test reports, aur user manuals shamil hain).
  + **Video Demonstration:** Working application ka video demonstration tayyar karna.

**Har Phase Mein Mustaqil Kaam (Ongoing Activities in Each Phase):**

* **Project Management:** Planning, scheduling, resource allocation, risk management, aur communication.
* **Documentation:** Har marhale mein mutaliqa documentation tayyar karna.
* **Version Control:** Code aur documents ke versions ko manage karna.
* **Communication:** Team members aur stakeholders ke darmiyan mustaqil rabta.