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## Assignment 1 – Startup Company Website Launch

### Situation

A startup company “**CodeWave Technologies**” is launching its first official website. They want:

- A professional homepage layout
- A newsletter subscription form
- A promotional company introduction video
- Background theme music
- Structured content for SEO

### Your Role

You are hired as a frontend developer to build the HTML5 structure.

### Business Requirements

1. Website must have:
  - Company logo and navigation menu
  - About section
  - Services section (minimum 3 services)
  - Testimonials section
  - Footer with contact details
2. Newsletter form must:
  - Validate email automatically
  - Ask for preferred contact time
  - Allow users to select service interest (suggestions allowed)
  - Prevent empty submission
3. Company intro video:
  - Must have controls
  - Show poster image

- Support at least two formats
- 4. Background audio:
  - Auto-play and loop
  - Show fallback message

### **Student Task**

Design and implement the full HTML5 structure using:

- Semantic elements
  - New input types
  - New attributes
  - Datalist
  - Media controls
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## **Assignment 2 – Online Hospital Appointment System**

### **Situation**

A hospital is digitizing appointment booking.

Patients must:

- Select department
- Choose preferred doctor
- Select appointment date and time
- Upload medical reports
- Provide contact details

### **Your Role**

Create an appointment booking page.

### **System Requirements**

1. Departments should appear as suggestions while typing.
2. Doctor selection must allow custom entry if not listed.

3. Appointment date cannot be past date.
4. Age must accept only valid numbers.
5. Phone number must be exactly 10 digits.
6. Email must validate automatically.
7. Medical reports upload should allow multiple files.
8. Emergency cases checkbox (if checked, disable time selection).

### **Student Task**

Use:

- HTML5 input types
  - Validation attributes
  - Pattern validation
  - Datalist
  - Proper semantic layout
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## **Assignment 3 – E-Learning Course Registration Portal**

### **Situation**

An online platform is launching a certification program.

Students must:

- Register for course
- Select batch month
- Choose preferred session timing
- Rate their skill level
- Watch introduction video before enrolling

### **Requirements**

1. Course selection should use auto-suggestions.
2. Batch selection should use month input.

3. Session timing must use time input.
4. Skill rating should use range or meter.
5. Display enrollment progress using progress bar.
6. Introduction video must have controls and subtitles.
7. Form must not submit if required fields are empty.

### **Student Task**

Design a complete semantic webpage implementing all above requirements.

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## **Assignment 4 – Travel & Tourism Booking Platform**

### **Situation**

A travel company wants a booking page with:

- Source city
- Destination city
- Travel date
- Return date
- Travel class
- Preferred airline
- Meal preference color tag
- Special assistance notes

They also want:

- Promotional video
- Travel theme audio

### **Business Constraints**

1. Return date cannot be before departure.
2. Source and destination must use suggestions.
3. Airline must allow custom entry.

4. Number of passengers: 1–10 only.
5. Meal preference must use color input.
6. Special notes must have placeholder guidance text.

### **Student Task**

Build the booking page using HTML5 features efficiently.

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## **Assignment 5 – Digital Banking Account Opening**

### **Situation**

A bank wants customers to open savings accounts online.

Customer must enter:

- Full name
- Email
- Phone number
- PAN number
- IFSC code
- Account type
- Date of birth
- Monthly income
- Upload ID proof

### **Security & Validation Rules**

1. PAN must follow valid pattern.
2. IFSC must follow 4 letters + 7 digits format.
3. Age must be minimum 18.
4. Monthly income must allow step value.
5. Account type suggestions via datalist.
6. File upload must be mandatory.

7. Form should highlight invalid fields automatically.

### **Student Task**

Design structured, secure HTML5 form layout using semantic elements and validation attributes.

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## **Assignment 6 – Media Blog Platform**

### **Situation**

A content creator wants a blog website where:

- Each article contains image, audio clip, and short video.
- Readers can search posts.
- Readers can subscribe for updates.
- Blog layout must be SEO friendly.

### **Functional Requirements**

1. Proper use of semantic layout elements.
2. Each article should include:
  - Title
  - Author
  - Date
  - Media (image + audio/video)
3. Search box must use search input type.
4. Subscription form must validate email.
5. Audio must loop.
6. Video must show poster image.

### **Student Task**

Build a semantic blog page with integrated multimedia and validation.

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