

# Welcome to Tree World

Get All Trees As JSON

### Oak Tree

Description: Strong wood, bears acorns

No. of Trees: 10

[More Details](#)

### Maple

Description: Sweet sap, lobed leaves

No. of Trees: 12

[More Details](#)

### Pine Tree

Description: Evergreen with needles

No. of Trees: 12

[More Details](#)

### Birch

Description: White bark, graceful form

No. of Trees: 12

[More Details](#)

### Eucalyptus

Description: Aromatic, fast-growing

No. of Trees: 12

[More Details](#)

### Banyan

Description: Huge with aerial roots

No. of Trees: 15

[More Details](#)

### Mango

Description: Sweet tropical fruit

No. of Trees: 15

[More Details](#)

### Ginkgo

Description: Fan-shaped ancient leave

No. of Trees: 15

[More Details](#)

## Tree Details

### Oak Tree

Description: Strong wood, bears acorns

No. of Trees: 10

No. of Years: 15

[Back to Tree List](#)

**Create Tree**

**Tree Name**

**Description**

**Number of Trees**

**Number of Years**

**Submit**

### Trees.cshtml

```
@{
    ViewData["Title"] = "Tree Page";
}
@model List<MyTree>

<div class="container py-5">
    <div class="row mb-5 justify-content-center">
        <div class="col-lg-8 text-center">
            <h1 class="display-4 fw-bold mb-3 text-success">
                <i class="bi bi-tree-fill"></i> Welcome to Tree World
            </h1>
            <a asp-controller="Tree" asp-action="GetAllTreesAsJson" class="btn btn-success btn-lg shadow-sm mb-4">
                <i class="bi bi-box-arrow-down"></i> Get All Trees As JSON
            </a>
        </div>
    </div>

    <div class="row">
        @if (Model != null && Model.Count > 0)
        {
            @foreach (var Tree in Model)
            {
                <div class="col-md-6 col-lg-4 mb-4">
```

```

<div class="card border-0 shadow-lg rounded-4 h-100 position-relative">
  <div class="card-body">
    <h5 class="card-title fw-bold text-success mb-2">
      <i class="bi bi-tag"></i> @Tree.Name
    </h5>
    <p class="card-text text-muted mb-1">
      <i class="bi bi-card-text"></i>
      <span class="fw-semibold">Description:</span>
      <span>@Tree.Description</span>
    </p>
    <p class="card-text mb-1">
      <i class="bi bi-stack"></i>
      <strong>No. of Trees:</strong>
      <span class="badge bg-secondary">@Tree.No_of_Trees</span>
    </p>
    <a asp-action="Detail" asp-route-Id="@Tree.Id" class="stretched-link
text-decoration-none">
      <i class="bi bi-info-circle"></i> More Details
    </a>
  </div>
</div>
</div>
}
}
else
{
  <div class="col-12 text-center">
    <div class="alert alert-info shadow">
      <i class="bi bi-emoji-frown"></i> No trees found. Try adding a new one!
    </div>
  </div>
}
</div>
</div>

@section Scripts {
  @{
    await Html.RenderPartialAsync("_ValidationScriptsPartial");
  }
}

```

**CreateTree.cshtml**

```

@{
    ViewData["Title"] = "Create Tree";
}
@model MyTree

<div class="container mt-5">
    <div class="row justify-content-center">
        <div class="col-lg-6 col-md-8">

            <div class="card shadow-lg border-0 rounded-4">
                <div class="card-header bg-success text-white text-center rounded-top">
                    <h3 class="mb-0"><i class="bi bi-tree-fill"></i> Create Tree</h3>
                </div>
                <div class="card-body p-4">

                    <form asp-action="CreateAction">

                        <div class="mb-3">
                            <label class="form-label fw-bold"><i class="bi bi-tag"></i> Tree Name</label>
                            <input class="form-control form-control-lg" type="text" placeholder="Enter the
Tree Name" asp-for="Name" />
                            <span asp-validation-for="Name" class="text-danger small"></span>
                        </div>

                        <div class="mb-3">
                            <label class="form-label fw-bold"><i class="bi bi-card-text"></i>
Description</label>
                            <textarea class="form-control form-control-lg" rows="3" placeholder="Enter the
Tree Description" asp-for="Description"></textarea>
                            <span asp-validation-for="Description" class="text-danger small"></span>
                        </div>
                        <div class="mb-3">
                            <label class="form-label fw-bold"><i class="bi bi-stack"></i> Number of
Trees</label>
                            <input class="form-control form-control-lg" type="number" min="1"
placeholder="Enter the No. of Trees" asp-for="No_of_Trees" />
                            <span asp-validation-for="No_of_Trees" class="text-danger small"></span>
                        </div>

                        <div class="mb-3">

```

```

        <label class="form-label fw-bold"><i class="bi bi-calendar-check"></i> Number
of Years</label>

```

```

        <input class="form-control form-control-lg" type="number" min="1"
placeholder="Enter the No. of Years" asp-for="No_of_years" />

```

```

        <span asp-validation-for="No_of_years" class="text-danger small"></span>
</div>

```

```

<div class="d-grid">
    <button class="btn btn-success btn-lg" type="submit">
        <i class="bi bi-check-circle"></i> Submit
    </button>
</div>

```

```

</form>

```

```

</div>
</div>

```

```

</div>
</div>
</div>

```

```

@section Scripts {
    @{
        await Html.RenderPartialAsync("_ValidationScriptsPartial");
    }
}

```

## Details.cshtml

```

@{
    ViewData["Title"] = "Detail Page";
}
@model MyTree

```

```

<div class="container py-5">
    <div class="row justify-content-center">
        <div class="col-lg-6 col-md-8">

            <div class="card border-0 shadow-lg rounded-4">
                <div class="card-header bg-success text-white text-center rounded-top">
                    <h3 class="mb-0">

```

```
<i class="bi bi-tree-fill"></i> Tree Details
</h3>
</div>
<div class="card-body text-center p-4">
  <h4 class="fw-bold text-success mb-3">
    <i class="bi bi-tag"></i> @Model.Name
  </h4>
  @if (!string.IsNullOrEmpty(Model.Description))
  {
    <p class="text-muted">
      <i class="bi bi-card-text"></i>
      <strong>Description:</strong> @Model.Description
    </p>
  }
  <p>
    <i class="bi bi-stack"></i>
    <strong>No. of Trees:</strong>
    <span class="badge bg-secondary">@Model.No_of_Trees</span>
  </p>
  <p>
    <i class="bi bi-calendar-check"></i>
    <strong>No. of Years:</strong>
    <span class="badge bg-info text-dark">@Model.No_of_years</span>
  </p>
  <a asp-action="Index" class="btn btn-outline-success mt-3">
    <i class="bi bi-arrow-left"></i> Back to Tree List
  </a>
</div>
</div>
</div>
</div>
</div>
```

**TreeModel.cs**

```
using System.ComponentModel.DataAnnotations;
```

```
namespace NewMvc.Models
```

```
{  
    public class MyTree  
    {  
        public int Id { get; set; }  
        [Required]  
        [StringLength(25, MinimumLength = 5)]  
        public string Name { get; set; }  
        [Required]  
        [StringLength(25, MinimumLength = 5)]  
        public string Description { get; set; }  
        [Required]  
        [Range(0,20)]  
        public int No_of_Trees { get; set; }  
        [Required]  
        [Range(0,20)]  
        public int No_of_years { get; set; }  
    }  
}
```

**TreeController.cs**

```
using Microsoft.AspNetCore.Mvc;
```

```
using NewMvc.Context;
```

```
using NewMvc.Models;
```

```
using System.Diagnostics;
```

```
namespace NewMvc.Controllers
```

```
{  
    public class TreeController : Controller  
    {  
        public List<MyTree> ListofTrees = new List<MyTree>();  
  
        TreeDbContext appDbContext;  
  
        public TreeController(TreeDbContext _appDbContext)  
        {
```

```
        appDbContext = _appDbContext;
    }
    public IActionResult CreateAction(MyTree myTree)
    {
        if (ModelState.IsValid)
        {
            appDbContext.MyTrees.Add(myTree); ;
            appDbContext.SaveChanges();
            return RedirectToAction("Index");
        }
        else
        {
            return RedirectToAction("CreatePage");
        }
    }
    public JsonResult GetAllTreesAsJson()
    {
        var allTrees = appDbContext.MyTrees.ToList();
        return Json(allTrees);
    }

    public IActionResult Index()
    {
        return View(appDbContext.MyTrees.ToList());
    }

    [Route("Tree/Details/{Id:int}")]

    public IActionResult Detail(int Id)
    {
        var selected = appDbContext.MyTrees.Where(x => x.Id == Id).FirstOrDefault();
        return View(selected);
    }
    public IActionResult CreatePage()
    {
        return View();
    }
}
}
```