

TypeScript Parsing Error Fix

Issue

Render deployment failed with TypeScript parsing error:

```
./src/hooks/usePermissions.ts
209:12  Error: Parsing error: Type expected.
```

Root Cause

The `usePermissions.ts` hook file was using JSX syntax (`<>{fallback}`, `<>{children}`) in the `PermissionGuard`, `RoleGuard`, and `ActionGuard` components without importing React.

In TypeScript files that use JSX, React must be in scope for the JSX transform to work correctly, even with the newer JSX runtime.

Solution

Added `import React from "react";` at the top of the file.

Changed File

- `src/hooks/usePermissions.ts`

Code Change

```
/**
 * Permission Hooks for CareLinkAI RBAC System
 *
 * React hooks for checking permissions in components
 */

+import React from "react";
import { useSession } from "next-auth/react";
import { UserRole } from "@prisma/client";
```

Deployment

- **Commit:** 62c26d9 - “fix: Add React import to usePermissions.ts to resolve JSX parsing error”
- **Status:** Pushed to GitHub (main branch)
- **Trigger:** Automatic deployment on Render

Verification Steps

1. Monitor Render Deployment

- Go to [Render Dashboard](https://dashboard.render.com) (<https://dashboard.render.com>)
- Check the deployment logs for CareLinkAI

- Look for successful build completion

2. Check for Parsing Errors

Verify the error is resolved:

```
# In deployment logs, ensure no errors like:  
# ./src/hooks/usePermissions.ts 209:12 Error: Parsing error: Type expected."
```

3. Test RBAC Functionality

Once deployed, test permission guards:

- Navigate to pages using `PermissionGuard`
- Verify role-based access control works
- Check that components render correctly based on permissions

Technical Details

Why This Fix Works

- 1. JSX Transform Requirements:** Even with React 17+ JSX transform, TypeScript's parser needs React in scope when analyzing JSX syntax in `.ts` files
- 2. Type Checking:** The TypeScript compiler uses React types for JSX element validation
- 3. Build Process:** Next.js build process requires explicit React imports for proper type checking

Files Using JSX in `usePermissions.ts`

- `PermissionGuard` component (line 197-213)
- `RoleGuard` component (line 225-240)
- `ActionGuard` component (line 255-270)

Expected Outcome

- ✓ TypeScript parsing error resolved
- ✓ Build completes successfully on Render
- ✓ RBAC permission guards work correctly
- ✓ No runtime JSX errors

Rollback Plan

If issues arise:

```
git revert 62c26d9  
git push origin main
```

Related Files

- `src/hooks/usePermissions.ts` - Fixed file
- `src/lib/permissions.ts` - Permission definitions (unchanged)
- `src/lib/auth-utils.ts` - Auth utilities (unchanged)

Next Steps

1. Fix applied and pushed
 2. Monitor Render deployment
 3. Verify build success
 4. Test RBAC functionality in production
 5. Close deployment issue
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Date: December 9, 2025

Fixed by: DeepAgent

Commit: 62c26d9