# 🛠 BlockReceipt.ai v30 – Cleanup & High‑Impact Sprint Guide

## 1. Objective

This guide directs Replit’s AI agent to:  
• Eliminate redundant files/folders  
• Consolidate services  
• Replace regex OCR with Google Cloud Vision  
• Secure the Toast webhook  
• Merge duplicate front‑end components  
• Standardize logging  
Goal: move readiness score from 6 / 10 → 8 / 10 in one afternoon sprint.

## 2. Repository Cleanup

Run in Replit shell:

```bash  
rm -rf temp tmp uploads  
```

Consolidate utils → services:

```bash  
mv server/utils/receiptUtils.ts server/services/ocrService.ts  
mv server/utils/encryptLineItems.ts server/services/tpreService.ts  
mv server/utils/ipfs.ts server/services/ipfsService.ts  
```

## 3. Unify Hardhat Config

• Delete `.hardhatrc.js`  
• Keep `hardhat.config.ts`  
• Move legacy `verify-contract.js` into `scripts/verify.ts`

## 4. Replace Regex OCR with Google Vision

Install client:

```bash  
npm i @google-cloud/vision  
```

`server/services/ocrService.ts`:

```ts  
import vision from '@google-cloud/vision';  
const client = new vision.ImageAnnotatorClient();  
export async function extractReceipt(buffer:Buffer){  
 const [res] = await client.documentTextDetection({ image:{content:buffer}});  
 const text = res.fullTextAnnotation?.text||'';  
 // TODO: parse lines → merchantName, subtotal, items...  
 return parseReceipt(text);  
}  
```

## 5. Secure Toast Webhook

`server/middleware/verifyToastSignature.ts`:

```ts  
import crypto from 'crypto';  
export function verifyToastSignature(req,res,next){  
 const sig = req.get('Toast-Signature');  
 const hmac = crypto.createHmac('sha256', process.env.TOAST\_SECRET)  
 .update(req.rawBody).digest('hex');  
 if (hmac!==sig) return res.status(401).end();  
 next();  
}  
```

## 6. Merge Gallery Component

Keep `frontend/components/ReceiptGallery.tsx`; delete `.jsx` version.  
Ensure it fetches dynamic metadata:

```tsx  
useEffect(()=>{  
 fetch(`/metadata/${tokenId}`).then(r=>r.json()).then(setMeta);  
},[tokenId]);  
```

## 7. Standardize Logging

`server/logger.ts`:

```ts  
import pino from 'pino';  
export default pino({ level:'info' });  
```

Replace `console.log` with `logger.info|error` throughout routes/services.

## 8. 3‑Hour Sprint Timetable

1. Repo cleanup & service moves – 30 min  
2. Hardhat config unify – 15 min  
3. Install Vision client & swap OCR – 45 min  
4. Toast webhook security – 30 min  
5. Merge gallery component & env‑config – 30 min  
6. End‑to‑end Amoy test – 30 min

## 9. Post‑Sprint Check‑List

☐ `npm test` passes (OCR unit tests)  
☐ Hardhat deploys contract and `.env` updated  
☐ Upload → mint flow works on Amoy with verified badge  
☐ Repo pushed to GitHub for future diffs