

LexEVS Meeting Minutes - 2023.05.10

Agenda

EVS Discussion

Open System Tickets

| Ticket | Description | Actions, Update |
|---------------------------------|--|--|
| NCI-RITM0413810 | EVS Explore URL updates to evsexplore-stage.semantics.cancer.gov on Stage tier | On Stage, Prod requested |
| NCI-RITM0433861 | Requesting update to the Term Browser Jenkins project | Completed |
| NCI-RITM0430005 | Testing Corretta Java 8 on Dev | Initial testing of scripts successful. I asked a question whether Tomcat was running against Corretta. Need to ping for update |
| NCI-RITM0435010 | Term Browser 2.19 patch release to Stage tier | Issue with build on Stage. caDSR link pointed to QA so need to update build configuration |
| NCI-RITM0435527 | Deployment of the Metathesaurus Browser 2.17 patch release to Stage tier | On Prod |
| NCI-RITM0438196 | CTS2_Service deployment to Production | On Prod |

| | SYSTEMS |
|------------------------------------|--|
| EVS transition to virtual machines | <p>Status:</p> <ul style="list-style-type: none">• Chuck shared an email about the work that he did for EVS• Aaron Taye attended 4/26 and discussed the plan moving forward. AT is project manager and will be coordinating team.<ul style="list-style-type: none">◦ Chuck on team as historical SME, but not the primary tech◦ Zihua He will be primary documentation◦ Eric Guava will be hands-on tech <p>Reference: Wiki page: Server Migration 2021</p> |
| Systems | <p>See ticket chart (above)</p> <ul style="list-style-type: none">• Issues on AWS servers involving certificates and java versions. Systems has started working on those tickets.• Security has not communicated a deadline (Travis Church) |
| | LEXEVS UPDATES |

| | |
|-------------------------------------|---|
| Future Planning | <p>Planning for April/May - EVS Plans for April 2023.png</p> <ul style="list-style-type: none"> • Priorities and Goals for May are <ul style="list-style-type: none"> ◦ Test Java 8 migration to Corretto - being tested on Dev ◦ Start Report Exporter dependency update ◦ Wrap up all other dependency updates ◦ Work on RMI retirement plan ◦ Write and review Comparison Mapping Tool User Stories and Requirements - under development ◦ Review Devops and Communication channels and needs - under development ◦ Proposal for "Health" dashboard for EVS infrastructure - under development |
| LexEVS Sprint Status | <p>Current Sprint - Sprint 207 (May 8 - May 22 2023)</p> <p>16X237 Agile Development - Sprint Status#16X237AgileDevelopmentSprintStatus-Sprint207</p> |
| Technical Debt remediation | <p>LexEVS Code Debt Refactoring</p> <ul style="list-style-type: none"> • Java 8 Corretta <ul style="list-style-type: none"> ◦ Corretta Java 8 installed on Dev <ul style="list-style-type: none"> ▪ loader testing successful ▪ Pending systems action- set up Tomcat on Corretta 8 ◦ Java dates - ticket entered by Mark to discuss timelines <ul style="list-style-type: none"> ▪ https://service.cancer.gov/ncisp?id=kb_article_view&sysparm_article=NCI-KB0012548&sys_kb_id=736972ac1bf65110550143bae54bcb10 ▪ Ticket entered to check Corretta testing with Tomcat NCI-RITM0430005 • CTS2 dependency work complete on Prod • lexevs-service-rest-docs dependencies in progress, near completion |
| Report Exporter | <ul style="list-style-type: none"> • Discussion Points: <ul style="list-style-type: none"> ◦ Working on update to Vue3 (JavaScript Framework). EVSREPEXP-451 <ul style="list-style-type: none"> ▪ master ticket: EVSREPEXP-442 - Migrate Vue.js version from 2.0 to 3.0 ▪ Description <ul style="list-style-type: none"> • On QA and being tested <ul style="list-style-type: none"> ◦ Jira tickets created for each feature, as requested ◦ QA team reported 2 issues - survey issue and page redirect ◦ Duplicate issue being worked on <ul style="list-style-type: none"> ▪ Not visible on QA, just on Dev ◦ Vulnerable dependencies - next on deck ◦ Demo wanted in the near future - this month ◦ Java vulnerability reported 5.1.23, requires systems to update java version on VM. NCI-SCTASK0644391. Decision Points: |
| caDSR Query | <p>Discussion Points:</p> <ul style="list-style-type: none"> • caDSR bringing up a new service, so there will be some URL changes to point to this. - NCIt browser ready on Stage and waiting on them. <ul style="list-style-type: none"> ◦ Jason to send updated link to Mark • SIP working with GDC to update links • Value Set issue discovered - on QA and waiting on security scan • Mark to send Lyubov questions to Denise about URL forwarding structure |
| Statistics Dashboard | <p>Discussion Points:</p> <ul style="list-style-type: none"> • Google analytics - Retiring GA and going to GA4 <ul style="list-style-type: none"> ▪ EVSExplore <ul style="list-style-type: none"> • Possible URL change (semantics.gov) <ul style="list-style-type: none"> ◦ On Prod • GA4 pending the URL fix <ul style="list-style-type: none"> ▪ NCI Terms Browser - On Stage, waiting on caDSR • Statistics - Sumo Logic <ul style="list-style-type: none"> ◦ Analyzing Sumo, considering other vendors (Datadog, others?) <p>Decision Points:</p> |
| Comparison/Mapping Tool | <p>Mark is working on user stories and requirements</p> |
| AWS Cloud to be in Separate Account | <p>Discussion Points</p> <ul style="list-style-type: none"> • Frozen <p>Decision Points:</p> |

| | |
|------------------------------------|---|
| Team Absences | <p>Mayo Team - Tracy May 22</p> <p>MSC -</p> <p>Leidos -</p> <p>Systems -</p> |
| | EVS SERVICE AND ARCHITECTURE GROUP UPDATES |
| EVS Service and Architecture Group | <p>Discussion Points:</p> <ul style="list-style-type: none"> Access to limited Metathesaurus for testing - supplied by B.Carlsen years ago <ul style="list-style-type: none"> Formulate formal question and send to Lori What is minimum set of vocabs needed for testing browsers <ul style="list-style-type: none"> Per Kim - if NCIt works other will work. Meta needed for NCIm GO for mappings <p>Decision Points:</p> |
| | DATA UPDATES |
| Data | <p>Discussion Points:</p> <ul style="list-style-type: none"> 23.04d in Prod Monthlies on Stage for review - Prod later this week <p>Decision Points:</p> |
| | BROWSER UPDATES |
| Browser | <ul style="list-style-type: none"> caDSR new tool - CDE browser links to terms browser. URLs needed updating and promoted in concert with CDE Browser <ul style="list-style-type: none"> Ready for Stage Will hold on Stage until CDE browser is ready to go to Prod Testing Requirements and Docker Testing Support Scan found stage tier issue with vulnerability. Working to reproduce to do a final fix |
| | QA UPDATES |
| QA | <p>Discussion Points: (see chart)</p> <ul style="list-style-type: none"> completed testing of legacy browsers Stage and Prod deployment progression and sanity done for term browser GA4 update and caDSR link working on Report Exporter, complete 6 of 7 Jira tickets <ul style="list-style-type: none"> 2 deviations sent back Apache restore meeting tomorrow (5/11/23) <p>Decision Points:</p> |
| | TERMINOLOGIES LIFECYCLE REPORT |
| | <p>Terminology Updates and Schedule</p> <p>Discussion Points:</p> <p>Decision Points:</p> |
| Mark Benson TPM Update | <ul style="list-style-type: none"> EVS Explore/Rest API ATO being worked upon Demo of uptime dashboard CBIIT imposed semantic infrastructure tools review - results in May. <ul style="list-style-type: none"> EVS needs to hold for feedback EVS Healthcheck Demo |

LexEVS Technical Debt Progress

| Technical Debt Related Update | Estimated Effort | Start Date | Complete Date | Status | JIRA | ADO Ticket |
|---|------------------|------------|---------------|-------------|-------------------------------|------------|
| Code Inventory | 4 days | 12/20/22 | 1/30/23 | Complete | | 2037998 |
| LexEvs - update "easy" jars | 2 days | 1/31/23 | 2/13/23 | Complete | LEXEVS-5319 | 2111723 |
| Update ddlutils - research and design | 3 days | 2/2/23 | 2/15/23 | Complete | | 2122958 |
| Update ddlutils - implementations | 10 days | 2/15/23 | 3/8/23 | Complete | | 2141127 |
| LexEvs Unit testing | 2 days | 3/8/2023 | | In Progress | LEXEVS-5325 | 2141156 |
| CTS2 lexEvs-service vulnerability update | 2 days | 3/13/2023 | 3/20/23 | Complete | | 2141189 |
| CTS2 unit testing | 2 days | 3/20/23 | 4/5/23 | Complete | LEXEVS-5326 | 2141198 |
| QA LexEvs / CTS2 | 3 days | 4/12/23 | 04/24/23 | Complete | LEXEVS-5327 | 2141217 |
| Repair QA issues | 2 days | 04/24/23 | 04/24/23 | Complete | | |
| Deployment LexEvs / CTS2 | 5 days (elapsed) | 05/01/23 | 05/03/23 | Complete | LEXEVS-5328 | 2141227 |
| LexEVS Corretta Java 8 testing | 3 days | 4/6/23 | | In Progress | LEXEVS-5331 | |
| CTS2 Corretta Java 8 testing | 1 day | 4/6/23 | | In Progress | LEXEVSCTS2-433 | |
| lexEvs remaining dependency updates - design | 10 days | 4/10/23 | 04/21/23 | Complete | LEXEVS-5333 | |
| lexEvs remaining dependency updates - implementation | 20 days | 04/13/23 | 04/24/23 | Complete | LEXEVS-5334 | |
| lexEvs remaining dependency updates - unit testing | 2 days | | | In Progress | LEXEVS-5335 | |
| CTS2 remaining dependency updates - design | 1 day | 04/19/23 | | Complete | LEXEVSCTS2-435 | |
| CTS2 remaining dependency updates - implementation | 3 days | | | Complete | LEXEVSCTS2-436 | |
| CTS2 Unit testing | 2 days | | | Complete | LEXEVSCTS2-437 | |
| QA | 2 days | | | Complete | LEXEVSCTS2-438 LEXEVS-5336 | |
| Deployment | 5 days (elapsed) | | | Complete | | |
| lexEvs-service-rest-docs vulnerability update design | 2 days | | | In progress | LEXEVSCTS2-440 | |
| lexEvs-service-rest-docs vulnerability implementation | 4 days | | | In progress | LEXEVSCTS2-441 | |
| lexEvs-service-rest-docs unit testing | 1 day | | | | LEXEVSCTS2-442 | |
| lexEvs-service-rest-docs QA | 1 day | | | | LEXEVSCTS2-443 | |
| lexEvs-service-rest-docs deployment | 4 days (elapsed) | | | | | |
| lexEvs-service-rest-docs Java 8 testing | 2 days | | | | | |
| Total Effort (Approximately) | 104 days | | | | | |

| Technical Debt Related Update | Estimated Effort | Status |
|--|------------------|--------|
| Report Exporter vulnerabilities - design | 4 days | |
| Report Exporter vulnerabilities - implementation | 5 days | |
| Unit testing | 2 days | |
| QA | 2 days | |
| Deployment | 5 days (elapsed) | |

Vocabularies Slated for Production

[Terminology Updates and Schedule](#)

| Vocabulary Name | Local Name | Version | Arrival Date | Loaded to data-qa DB | Date to Stage | Date to Production |
|---------------------------|------------|--------------------|--|---|---|--|
| Vocabulary Name in LexBIG | Short Name | Version identifier | Date the vocabulary arrived for processing | Has the vocabulary been loaded to the data-qa database? | Approximate date the vocabulary version is scheduled to move to staging | Approximate date the vocabulary version is scheduled to move to production |
| NCI Thesaurus | NCIt | 23.04d | 04/24/2023 | yes | 05/04/23 | 05/08/23 |

| | | | | | | |
|-----------|-----------|---------|------------|-----|----------|----------|
| NCIt-HGNC | NCIt-HGNC | Apr2023 | 04/24/2023 | yes | 05/04/23 | 05/08/23 |
| SwissProt | SwissProt | May2023 | 04/24/2023 | yes | 05/04/23 | 05/08/23 |
| ChEBI | ChEBI | v211 | 05/07/23 | yes | 05/10/23 | 05/11/23 |
| CanMED | CanMED | May2023 | 05/07/23 | yes | 05/10/23 | 05/11/23 |
| HGNC | HGNC | May2023 | 05/07/23 | yes | 05/10/23 | 05/11/23 |

QA Schedule and Status

see [QA Scheduling and Status](#)

SECTION FOR FUNCTIONAL SYSTEM TESTING STATUS ::


| Application and Version | Percentage Complete | Estimated Completion Date per Iteration | Priority Level | Type Of Testing | Current Tier for Release (DEV, QA, Stage, Prod) | Expected Production Date |
|--|---------------------|---|----------------|--------------------------|---|--------------------------|
| EVS REST API (v1.6) | 100% | 5/27/2022 | High | Progression + Regression | QA | 6/6/2022 |
| EVS Explore (v1.6) | 100% | 5/27/2022 | High | Progression + Regression | QA | 6/6/2022 |
| EVS REST API(v1.6) | 100% | 6/1/2022 | High | Regression | Stage | 6/6/2022 |
| EVS Explore(v1.6) | 100% | 6/2/2022 | High | Regression | Stage | 6/7/2022 |
| EVS REST API(22.05e) - Monthly Data Deployment | 100% | 6/1/2022 | High | Regression | Stage | 6/3/2022 |
| EVS REST API(22.05e) - Monthly Data Deployment | 100% | 6/3/2022 | High | Regression | Production | 6/3/2022 |
| EVS REST API(v1.6) | 100% | 6/6/2022 | High | Regression | Production | 6/6/2022 |
| EVS Explore(v1.6) | 100% | 6/7/2022 | High | Regression | Production | 6/7/2022 |
| NCIt,NCIm,TermForm(22.05e + GO & HGNC Jun 2022 Deployment) | 100% | 6/3/2022 | High | Regression | Stage | 6/6/2022 |
| NCIt,NCIm,TermForm(22.05e + GO & HGNC Jun 2022 Deployment) | 100% | 6/6/2022 | High | Regression | Production | 6/8/2022 |
| EVS REST API(22.06d) - Monthly Data Deployment | 100% | 6/30/2022 | High | Regression | Stage , Production | 6/30/2022 |
| NCIt,NCIm,TermForm(22.06d) - Monthly Data Deployment | 100% | 7/8/2022 | High | Smoke | Stage,Production | 7/8/2022 |
| NCIt,NCIm,TermForm(22.05e + GO & HGNC Jun 2022 Deployment) | 100% | 6/3/2022 | High | Regression | Stage | 6/6/2022 |
| NCIt,NCIm,TermForm(22.06d) - Monthly Data Deployment | 100% | 7/8/2022 | High | Smoke | Stage,Production | 7/8/2022 |
| NCIt,NCIm,TermForm(ChEBI, GO & HGNC July 2022 Deployment) | 100% | 7/12/2022 | High | Smoke | Stage | 7/12/2022 |
| NCIt,NCIm,TermForm(ChEBI, GO & HGNC July 2022 Deployment) | 100% | 7/13/2022 | High | Smoke | Production | 7/13/2022 |
| EVS REST API(22.07d) - Monthly Data Deployment | 100% | 7/27/2022 | High | Regression | Stage , Production | 7/27/2022 |
| NCIt,NCIm,TermForm(22.07d) - Monthly Data Deployment | 100% | 8/1/2022 | High | Smoke | Stage,Production | 8/1/2022 |
| NCIt,NCIm,TermForm(CanMED, GO & HGNC AUG 2022 Deployment) | 100% | 8/3/2022 | High | Smoke | Stage,Production | 8/3/2022 |
| EVS REST API - 1.6.1 (Hot Fix Deployment) | 100 % | 8/3/2022 | Highest | Progression + Regression | Stage,Production | 8/4/2022 |

Attendees


| Name | Role | Present |
|--------------------|-------------|---------|
| Remennik, Lyubov | NIH/NCI | |
| Safran, Tracy | NIH/NCI [C] | |
| Ong, Kim L | NIH/NCI [C] | |
| Lucas, Jason R | NIH/NCI [C] | |
| Bauer, Scott | NIH/NCI [C] | |
| Alkis, Barry | NIH/NCI [C] | |
| Solie, Chuck | NIH/NCI [C] | |
| Truong, Tracy | NIH/NCI [C] | |
| Kondareddy, Swathi | NIH/NCI [C] | |
| Singh, Itendra | NIH/NCI [C] | |
| Zhang, Chao | NIH/NCI [C] | |
| Johnson, Connie | NIH/NCI [C] | |
| Whiteman, Lori | NIH/NCI [C] | |
| Benson, Mark | NIH/NCI [C] | |
| Andrew Moore | NIH/NCI [C] | |

JIRA Issues

Recent EVS Stats Dashboard Related Bugs and Features (within last week)

| key | summary | type | created | reporter | priority | status |
|---|---------|------|---------|----------|----------|--------|
| <div> Jira project doesn't exist or you don't have permission to view it.</div> <div>View these issues in Jira</div> | | | | | | |

Recent Report Exporter Related Bugs and Features (within last week)

| key | summary | type | created | reporter | priority | status |
|---|---------|------|---------|----------|----------|--------|
| <div> Jira project doesn't exist or you don't have permission to view it.</div> <div>View these issues in Jira</div> | | | | | | |

Recent LexEVS Related Bugs and Features (within last week)

| key | summary | type | created | reporter | priority | status |
|-----|---------|------|---------|----------|----------|--------|
|-----|---------|------|---------|----------|----------|--------|



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Recent CTS2 Service Related Issues (within last week)

| key | summary | type | created | updated | due | assignee | reporter | priority | status | resolution |
|-----|---------|------|---------|---------|-----|----------|----------|----------|--------|------------|
|-----|---------|------|---------|---------|-----|----------|----------|----------|--------|------------|



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6.5 LexEVS Related Issues

| key | summary | type | created | updated | due | assignee | reporter | priority | status | resolution |
|-----|---------|------|---------|---------|-----|----------|----------|----------|--------|------------|
|-----|---------|------|---------|---------|-----|----------|----------|----------|--------|------------|



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6.5 CTS2 Service Related Issues

| key | summary | type | created | updated | due | assignee | reporter | priority | status | resolution |
|-----|---------|------|---------|---------|-----|----------|----------|----------|--------|------------|
|-----|---------|------|---------|---------|-----|----------|----------|----------|--------|------------|



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| Hierarchy | Milestone | Work Steps | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 | Week 16 | Week 17 | Week 18 | Week 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | 30 M | 31 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M | 7 T | 8 W | 9 T | 10 F | 13 M | 14 T | 15 W | 16 T | 17 F | 20 M | 21 T | 22 W | 23 T | 24 F | 27 M | 28 T | 1 W | 2 T | 3 F | 6 M |