**Deliverable 2**

**Envision Health**

**Will and Katie**

**GitHub:** [**https://github.com/Kburgan1006/CS460W-Project**](https://github.com/Kburgan1006/CS460W-Project)

**Scenarios:**

**Get Initial Vitals (Nurse)**

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| --- | --- |
| **Name:** | Get Initial Vitals |
| **Actors:** | Charlie: Nurse |
| **Flow of Events:** | 1. Patient arrives in the ER for the first time. 2. Nurse gets initial biometric data such as height, weight, blood pressure, blood oxygen levels, temperature, heart rate, respiration rate. 3. Nurse logs in to system 4. Nurse activates “Submit Vital” function 5. *System pops up dialog box.* 6. Nurse enters and submits information. 7. *System confirms data entry.* 8. Nurse receives confirmation. |

**Admitting Patient**

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| **Name:** | admittingPatient |
| **Actors:** | Claire: Receptionist/ER Staff |
| **Flow of Events:** | 1. Claire, receives form from patient filled out with personal information. She then navigates to the admit new patient tab on System. 2. Claire enters the address, phone number, name, why the patient is visiting hospital, emergency contact, etc, into the system. She clicks submit. She waits for the System to confirm submission into the database. 3. After receiving confirmation the patient is fully admitted and taken back to be examined. |

**Use Cases:**

**Enter Patient Information**

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| **Name:** | enterPatientInfo |
| **Participating Actors:** | Initiated by Receptionist/ER Staff |
| **Flow of Events:** | 1. Receptionist selects interface option to create a new patient. 2. *System opens a dialog box where information can be entered* 3. Receptionist enters patient information and clicks submit button. 4. *System receives form, and responds to Receptionist with acknowledgment.* |
| **Entry Condition:** | The *Receptionist* is logged into *System.* |
| **Exit Condition:** | The *Receptionist* has received confirmation from *System* that the information has been entered into the database  OR  The *Receptionist* has received an explanation as to why the information could not be entered. |
| **Quality Requirements:** | The *Receptionist’s* form submission is acknowledged within 1 minute. |

**Request Discharge Papers**

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| **Name:** | requestDischargePapers |
| **Participating Actors:** | Initiated by Receptionist/ER Staff |
| **Flow of Events:** | 1. Receptionist clicks “Generate Bill and Discharge Papers” option from discharge screen of patient. 2. *System responds by collecting nights stayed, tests/labs performed, and medications prescribed. Then generates bill with that information.* 3. *System then pulls discharge information and generates a file with that information as well.* 4. Receptionist receives both generated files. |
| **Entry Condition:** | *Receptionist* is logged into System and patient is marked for discharge. |
| **Exit Condition:** | The *Receptionist* has received confirmation from *System* that the information has been entered into the database  OR  The *Receptionist* has received an explanation as to why the information could not be entered. |
| **Quality Requirements:** | *Receptionist* has received discharge papers and bill within 2 minutes. |

**Enter Vitals**

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| **Name:** | enterVitals |
| **Participating Actors:** | Initiated by Nurse |
| **Flow of Events:** | 1. Nurse has sheet of biometric data, selects interface option to enter vitals. 2. *System opens a dialog box where information can be entered* 3. Nurse enters vitals into form. 4. *System receives form, and responds to Nurse with acknowledgment.* |
| **Entry Condition:** | The *Nurse* is logged into *System* |
| **Exit Condition:** | The *Nurse* has received confirmation from *System* that the information has been entered into the database, OR  The *Nurse* has received an explanation as to why the information could not be entered. |
| **Quality Requirements:** | The *Nurse’s* form submission is acknowledged within 1 minute. |

**Order Labs**

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| **Name:** | orderLabs |
| **Participating Actors:** | Initiated by Nurse |
| **Flow of Events:** | 1. Nurse selects interface option to order labs/ tests. 2. *System opens a dialog box where lab/ test to be ordered can be selected and the patient ID can be entered.* 3. Nurse selects the test and enters patient ID. 4. *System receives order, and responds to Nurse with acknowledgment.* |
| **Entry Condition:** | The *Nurse* is logged into *System* |
| **Exit Condition:** | The *Nurse* has received confirmation from *System* that the order has been sent to the system OR  The *Nurse* has received an explanation as to why the order could not be made. |
| **Quality Requirements:** | The *Nurse’s* lab order is acknowledged within 1 minute. |

**Enter Discharge Instructions**

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| **Name:** | enterDischargeInstructions |
| **Participating Actors:** | Initiated by Nurse |
| **Flow of Events:** | 1. Nurse selects interface option to enter instructions for discharge. 2. *System opens a dialog box where patient ID can be entered and discharge instructions written.* 3. Nurse enters instructions and patient ID. 4. *System receives form, and responds to Nurse with acknowledgment.* |
| **Entry Condition:** | The *Nurse* is logged into *System* |
| **Exit Condition:** | The *Nurse* has received confirmation from *System* that the form has been entered into the database, OR  The *Nurse* has received an explanation as to why the form could not be entered. |
| **Quality Requirements:** | The *Nurse’s* form submission is acknowledged within 1 minute. |

**Enter Vitals**

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| **Name:** | enterVitals |
| **Participating Actors:** | Initiated by Doctor |
| **Flow of Events:** | 1. Doctor has sheet of biometric data, selects interface option to enter vitals. 2. *System opens a dialog box where information can be entered* 3. Doctor enters vitals into form. 4. *System receives form, and responds to Doctor with acknowledgment.* |
| **Entry Condition:** | The *Doctor* is logged into *System* |
| **Exit Condition:** | The *Doctor* has received confirmation from *System* that the information has been entered into the database, OR  The *Doctor* has received an explanation as to why the information could not be entered. |
| **Quality Requirements:** | The *Doctor’s* form submission is acknowledged within 1 minute. |

**Order Labs**

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| **Name:** | orderLabs |
| **Participating Actors:** | Initiated by Doctor |
| **Flow of Events:** | 1. Doctor selects interface option to order labs/ tests. 2. *System opens a dialog box where lab/ test to be ordered can be selected and the patient ID can be entered.* 3. Doctor selects the test and enters patient ID. 4. *System receives order, and responds to Doctor with acknowledgment.* |
| **Entry Condition:** | The *Doctor* is logged into *System* |
| **Exit Condition:** | The *Doctor* has received confirmation from *System* that the order has been sent to the system OR  The *Doctor* has received an explanation as to why the order could not be made. |
| **Quality Requirements:** | The *Doctor’s* lab order is acknowledged within 1 minute. |

**Enter Discharge Instructions**

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| **Name:** | enterDischargeInstructions |
| **Participating Actors:** | Initiated by Doctor |
| **Flow of Events:** | 1. Doctor selects interface option to enter instructions for discharge. 2. *System opens a dialog box where patient ID can be entered and discharge instructions written.* 3. Doctor enters instructions and patient ID. 4. *System receives form, and responds to Doctor with acknowledgment.* |
| **Entry Condition:** | The *Doctor* is logged into *System* |
| **Exit Condition:** | The *Doctor* has received confirmation from *System* that the form has been entered into the database, OR  The *Doctor* has received an explanation as to why the form could not be entered. |
| **Quality Requirements:** | The *Doctor’s* form submission is acknowledged within 1 minute. |

**Prescribing Medication**

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| **Name:** | prescribingMedication |
| **Participating Actors:** | Initiated by Doctor |
| **Flow of Events:** | 1. Doctor opens “Add New Prescription” option from menu bar. 2. *System responds by presenting a form to the Doctor.* 3. Doctor completes form by entering prescription amount, medication to be take, and instructions for prescription. The doctor then submits the form. 4. *System receives the form, submits info to database, and sends confirmation to doctor.* |
| **Entry Condition:** | The Doctor is logged into System |
| **Exit Condition:** | The *Doctor* has received confirmation from *System* that the information has been entered into the database, OR  The *Doctor* has received an explanation as to why the information could not be entered. |
| **Quality Requirements:** | The *Doctor’s* form submission is acknowledged within 1 minute. |

**Diagnosing Problem**

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| **Name:** | diagnosingProblem |
| **Participating Actors:** | Initiated by Doctor |
| **Flow of Events:** | 1. Doctor opens “Add Diagnosis” option from menu bar. 2. *System responds by presenting a form to the Doctor.* 3. Doctor completes form by entering their diagnosis. The doctor then submits the form. 4. *System receives the form, submits info to database, and sends confirmation to doctor.* |
| **Entry Condition:** | Doctor is logged into System |
| **Exit Condition:** | The *Doctor* has received confirmation from *System* that the information has been entered into the database, OR  The *Doctor* has received an explanation as to why the information could not be entered. |
| **Quality Requirements:** | The *Doctor’s* form submission is acknowledged within 1 minute. |

**Order Discharge**

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| **Name:** | orderDischarge |
| **Participating Actors:** | Initiated by Doctor |
| **Flow of Events:** | 1. Doctor opens “Mark for Discharge” option from menu bar. 2. *System responds by presenting a form to the Doctor.* 3. Doctor completes form by entering their Discharge instructions and marking patient for discharge. The doctor then submits the form. 4. *System receives the form, submits info to database, and sends confirmation to doctor.* |
| **Entry Condition:** | Doctor is logged into System |
| **Exit Condition:** | The *Doctor* has received confirmation from *System* that the information has been received by the database, OR  The *Doctor* has received an explanation as to why the information could not be. |
| **Quality Requirements:** | The *Doctor’s* submission is acknowledged within 1 minute. |

**Exceptions**

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| **UC 1 Exception Name** | **Description** |
| **IncompleteForm** | **Extends EnterPatientInfo, EnterPatientVitals, OrderLabs EnterVitals, EnterDischargeInstructions, OrderDischarge, DiagnoseProblem, PrescribeMedication.** User attempts to submit form without all required information entered. *Handled by restarting action and warning user about missing information* |
| **PatientNotFound** | **Extends EnterPatientVitals, OrderLabs EnterVitals, EnterDischargeInstructions, OrderDischarge, DiagnoseProblem, PrescribeMedication .** User attempts to complete patient-related functions on a non-existent patient. *Handled by restarting action and warning user about patient not being found in the system.* |
| **Timeout** | **Extends EnterPatientInfo, EnterPatientVitals, OrderLabsmEnterVitals, EnterDischargeInstructions, OrderDischarge, DiagnoseProblem, PrescribeMedication.** User fails to complete transaction before timer runs out. *Handled by canceling transaction.* |
| **InvalidNumber** | **Extends PrescribeMedication.** User enters an invalid number of doses for the prescription, such as a negative number, a non-integer number, or zero. *Handled by canceling transaction and warning user about invalid number.* |