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### Required Skills:

(List skills needed) -

C#, .NET,

Web (HTML / JS / CSS), Angular,  
Web API call to UNOS (can be  
mocked for demo with a database,  
but this is all about data exchange)

### Preferred Team

#### Communications:

Conference Call, WebEx /  
GoToMeeting

### Data Sources:

When the project is accepted we can  
get the full list of data, but mostly it  
is demographic data about the donor,  
location of the patient in the hospital,  
clinical data (admitting diagnosis,  
cause of death, death date,  
extubation data, ventilator status, has  
a heartbeat, active malignancies,  
etc.), and contact data for who is  
referring the donor. Most of the data  
is from the patient record, but some  
may need to be collected if it is not  
available (we know has a heartbeat,  
ventilator status, and extubation can  
be trouble areas). Also a UNOS  
assigned Donor Hospital ID needs to  
be sent, so the software needs to be  
configurable to store that (or get that  
configuration from the EHR).

### Other Items:

Easter time zone is preferred

**Intellectual Property:** We ultimately just want a solution in this space. I assume source code ultimately is delivered to us as we would want to maintain this solution in the future as we have to adhere to regular updates based on policy change. We are primarily a .Net shop, but if the students are more comfortable creating the solution in Java, that is ok also. I guess we can discuss that during the project kick-off.

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## TIMELY DONOR REFERRAL

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We are attempting to facilitate the referral of potential organ and tissue donors from a donor hospital to an organ procurement organization (OPO). This process is largely done via phone calls currently. This leads to time being taken by the critical care nurse at the hospital to relay the information. There are issues with accuracy, logistics (sometimes being put on hold, etc.) and access ultimately from the OPO to EHR records. If there was a SMART on FHIR app to collect the data in a clinical workflow, most of the data could be collected directly from the patient record and would allow nurses to focus on patient care and not phone calls.

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## PROJECT OBJECTIVES

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Create a SMART on FHIR app to collect referral information and send it to UNOS via Web API (already developed). Bonus: Be able to receive a response that contains a Referral ID, Case ID, and Automatic Ruleout (boolean that marks whether the donor was determined to be intelligible based on sent clinical data).

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## SUCCESSFUL PROJECT

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To be discussed...

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**Team Info:**

Developer, Analyst, Tester, Project Manager. Allows one team of 4-6 members.