**Terms of Reference**

|  |  |
| --- | --- |
| Project Title/Assignment Title | Development and Implementation of Real Estate Investing Platform |
| Country | Georgia |
| Client | York Holding Group LLC |
| Tender announcement date | 17 February 2023 |
| Proposals submission date | 10 March 2023 |
| Deadline for clarifications | 24 February 2023 |
| Starting date of the project | March 2023 |
| Duration of the Project | 52 weeks |
| Warranty period | 12 months |
| Consultant | Consultant will be firm |

Instructions for Submitting Proposals

Under this Project, York Holding Group LLC will contract the services of an ICT company for the **development of** **web application and iOS and Android applications** **for Real Estate Investing Platform** in accordance with this Request for Proposals (RFP) and Software Requirements Specification (SRS) which will be provided to interested bidder.

York Holding Group LLC now invites eligible ICT companies to provide their Technical and Financial Proposal to provide services to this Project. Interested companies should provide information demonstrating that they have the required qualifications and relevant experience to perform the services, as well as the complete proposals outlining their technical approach and mythology and financial proposal in the form suggested by the ToR.

Interested bidders shall develop their Technical and Financial Proposal according to this ToR and the draft Software Requirements Specification (SRS), which will be provided to the interested bidder upon the request under a non-disclosure agreement (NDA).

A clarifications request, as well as a request for obtaining the Software Requirements Specification (SRS) document must be sent to the email address below. Clarifications to the ToR and the SRS can be requested only before the deadline for submitting a request for clarification: **February 24, 2023, at 23:00 p.m. (local time).**

Technical and Financial Proposal must be delivered in a written form to the address below by email by **March 10, 2023, at 23:00 p.m. (local time).**

**Address:**

Email: bd@yorktowers.com

Contract Person (name): Nino Pertaia

Position: Chief Business Development Officer

About the Project

The Project envisages the development and implementation of Real Estate Investing Platform (hereinafter «Platform» or «System»).

The Platform allows multiple investors to pool their money and collectively invest in real estate projects than they could on their own. It encourages all size of real estate investments, from small to large, thus empowering ordinary people to convert their savings to passive assets.

Start investing in property with the Platform is easy. By purchasing share in a company, that will be established separately for the purpose of investment, as an investor, the shareholder, along with other investors, fund a property or real estate project. Capital that is raised goes to the SPV company which owns the property (partner company) to manage property, that includes renting it out and managing all corresponding operations, which generates ROI for each investor.

Unlike bank deposit accounts, earnings with the Platform are accelerated from the renting the residential property (commercial property will follow), allowing investors to receive a stable, predictable stream of passive income, backed by real estate, and paid out monthly, quarterly, or annually, depending on the project. Withdrawal of rented income that will be transferred to customers wallet alternatively a customer can decide to reinvest profits into another project, that is allowed anytime.

Investors can earn not just through dividends but also capital appreciation, which helps in wealth creation in the short and long run.

Transparency and participation are guaranteed by financial and operational reporting, as well as the right to vote for strategic decisions (for large investors), such as a sale of a property, significant capital expenditure, etc.

Investment Project is built in minimum investment target amounts, which provide for the minimum amount the Platform must raise before proceeding to the project. However, as an additional safeguard, the operating company invests itself in each investment project to successfully achieve the funding target and minimize the number of unfunded properties.

The Platform guarantees easy exit at any time. Shares are sold on the secondary market or directly repurchased by the operating company (The final decision to repurchase shares is made by the operating company).

## Objectives

The primary objective of developing **the Platform** is to make Real Estate investing simple, accessible, and transparent. The Platform pairs innovative technology with real estate experience and industry-leading investor services to offer an unparalleled investing experience.

Under this Project, York Holding Group LLC will contract the services of an ICT company for the **development of** **web application and iOS and Android applications** for Real Estate Investing Platform in accordance with this Request for Proposals (RFP) and Software Requirements Specification (SRS) which will be provided to interested bidder.

Scope of Work and Expected Outputs

The Project requires from the successful selected bidder (the Contractor) services related to design, software development, testing, and implementation of Information System for Real Estate investment **(Platform)**, as well as training of Client’s staff on how to use and manage the newly developed digital platform and technical maintenance and support services.

The Contractor shall provide services inaccordance with this ToR, the Software Requirements Specification (SRS) and their Proposals, provided that the Client’s requirements are considered and addressed during the system design, development and implementation phases.

The scope of work will include the development and release of a web application, as well as iOS and Android mobile applications. The bidders are encouraged to propose the programming languages in their Technical Proposal. For iOS and Android mobile apps, the native programming languages shall be used. Development of a cross-platform application will not be considered satisfactory to fulfil the obligations under this Project.

For attaining a global presence, the web application, as well as mobile applications for iOS and Android shall be in 3 languages: English (primary language), Arabic and Russian. The multilanguage functionality shall be provided for all text fields.

The Contractor must deliver a “turnkey” solution, including project management, preparation and coordination of the proposed appliance architecture and software development, acceptance tests and deployment and assistance during the production startup. The Technical Proposal submitted by the bidder must include detailed description of the proposed services.

The basic software shall be selected taking into account the following characteristics and functionality:

* **Architecture:** a 3-tier client-server architecture is used (client application - application server - database server), which ensures the construction of centralized software systems with a single central database;
* **Data Storage:** DBMS is used for data storage, the use of which does not require the purchase of licenses, or alternatively the license fee shall be provided in the Financial Proposal.
* **The client application**: is built on the principle of a web application;

A client, in general, does not require the installation of additional software on the user's computer (which can be used to implement certain functions, for example, scanning or identity verification);

* The software components provide the necessary means of automated control of the data integrity of the stored information, personalization of data created by several users, keeping a log of operations performed;
* The platform used provides a set of tools for the development of the system, its modernization, increasing the functionality without involving the Developer, in particular, the following tools can be used that are part of the platform: editors of interface forms and reports, built-in programming language (JavaScript, PHP, .Net, Phyton, etc.,)
* All software will be installed in virtual machines Linux (most probably Debian) or Windows operating system will be used;
* The system shall have a REST API to integrate mobile applications to system

## Overall Approach

An iterative development approach is strongly recommended to deliver the project on time and according to the Client’ expectations. When developing the project methodology, the Contractor shall consider the following aspects: Development shall be based on an iterative Agile development methodology. The iterations shall result in **bi-weekly or monthly feature releases** of the Platform to the test environment. The release plan and feature set shall be pre-approved by the Client and reviewed prior to the start of each iteration. A time-boxed approach using an industry recognized Agile methodology, such as SCRUM shall be applied, maximising the participation of the Client.

The Contractor shall plan intermediary **bi-weekly demo releases** attended by the Client’s key staff. After each demo release the Contractor shall prepare and submit a demo minutes summarizing progress against the approved project plan, identified risks and dependencies if any, remedial that actions that shall be taken, and planned activities for the following release.

## Deliverables, Timelines and Proposed Payment Schedule

The initial schedule of deliverables and payments for the services will be agreed with the Contractor before the start of the assignment. Payments to the Contractor to cover management and operational costs will be linked to the submission of deliverables by phases. A preliminary schedule is provided below.

|  |  |  |
| --- | --- | --- |
| **No** | **Deliverables** | **Payment** |
| 0**.** | Advance payment | 10% |
|  | * 1. Updated Software Requirements Specification SRS (Draft SRS will be provided by the Client)   2. UI/UX Design for web application, including mockups, wireframes and design prototypes   3. Detailed Implementation Plan | 5% |
|  | 2.1. Administration (Module 1), including Users entity, Roles’ entity, Users Role, Role permission, Login Logs, Forget Password  2.2. Directories service (Module 2), including country’s entity, Cities entity, Project types  2.3. User Profile (Module 9), including Profiles, Profile validation and Profile Validation Request, Uploading files in Profile   * 1. UI/UX Design for iOS and Android mobile applications, including mockups, wireframes and design prototypes | 5% |
|  | Multilanguage functionality for all text fields | 5% |
|  | 4.1. Investment Projects (Module 3) - admin application, including Files entity (file upload module), Projects entity, Project Properties, Upload Project related files  4.2. Investment Projects (Module 3) – Client Front-end | 5% |
|  | 5.1. Project Operations (Module 4) -admin application, including Project operations entity, Project Return, and Income Calculator  5.2. Project Operations (Module 4) – Client Front-end | 5% |
|  | 6.1. Integration with the payment system for web and mobile applications (Visa, Master Card, Amex)  6.2. Making an Investment (Module 5) -Client side, including Investment Request entity, Project shares entity, Make Investment Order  6.3. Orders in admin application | 5% |
|  | Digital Wallet (Module 6), including Transactions entity, creating digital account, account transactions, add credit cards | 5% |
|  | 8.1. Distributions (Module 7), including distributions entity and distributions details  8.2. Selling Request (Module 8), including client side to send a Selling Request  8.3. Selling Request (Module 8), admin application to review and put the share for Resale | 10% |
|  | Public Portal (Module 10), including front-end and admin application for management of static pages | 5% |
|  | 10.1. Web and mobile applications -Alpha version and Load and stress test  10.2. Role based user training | 10% |
|  | Integration with the payment system for web and mobile applications (Apple Pay, Google Pay, Paypal) | 5% |
|  | Extended Integration with payment system (Wire transfer, WeChat Pay) | 5% |
|  | Extended Integration with payment system (Crypto payment) | 5% |
|  | Web and mobile applications – final version, together with the program codes, access details, created profiles for at least one administrator, load and stress test, penetration test and vulnerability test | 10% |
|  | Technical Support Services for the warranty period of 12 months | 5% |

## The above schedule of deliverables is indicative; the bidders are encouraged to submit their proposed schedule of deliverables and payments in their Technical and Financial Proposals, which will be subject of negotiation with the successful bidders.

## Implementation is expected to begin with the development and release of a minimum viable product (MVP), the features, scope and timing of which will be agreed upon with the successful bidder/contractor, and the agreed scope and timing of the MVP is reflected in the Detailed Implementation Plan (Deliverable 1.3).

## Activities and Implementation Phases

### **Phase I – Detailed Analysis and Design**

*Review and Finalize Design Documentation*

* + - 1. Contractor shall review a Software Requirements Specification (SRS) developed by the Client and raise clarifications, as required, to aid design, development, and delivery of system.
      2. Suggested revisions of the Software Requirements Specification (SRS) shall be documented and provided to the Client for approval.
      3. The Client shall have the right to raise the need to discuss any aspects of the content of suggested revisions that diminish the capabilities of the system, as envisaged, and captured in the original SRS document.
      4. The Contractor shall submit the Physical Architecture and Logical Architecture as part of the SRS document.
      5. The final SRS document shall be presented to the Client.

*Detailed Implementation Plan*

Once the design documentation is finalized, the Contractor shall prepare and submit the Detailed Implementation Plan which shall be based on Agile methodology.

The Detailed Implementation Plan shall include the development and release of a minimum viable product (MVP). The features, scope and timing of the MVP will be agreed upon with the successful bidder/contractor, and the agreed scope and timing of the MVP shall be reflected in the Detailed Implementation Plan.

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### **Phase II – Software Development and Configuration**

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The development phase shall be planned according to an Agile methodology as described in Section Overall Approach. In the Proposal, number of iterations and their approximate duration as well as the detailed breakdown of the activities shall be provided by the Bidder subject to Client’s approval.

Each iteration shall include the planning of the iteration, design and prototyping, coding, testing and debugging, fixing and deployment.

*Design and Prototyping*

The Contractor shall undertake and agree with the Client a UI/UX Design and prototyping work for web and mobile applications. User Interfaces (GUI) screens mockups and related specifications of the interfaces’ elements such as buttons, labels, dropdown lists, textboxes, etc. shall be priory agreed with the Client.

The Contractor will create mockups for web and mobile applications, wireframes and design prototypes. The initial mockups shall be tested and agreed with the Client before converting them into UI/UX designs and easy-to-use interface.

The Contractor shall maintain and support post-release UI/UX services during the project implementation period (as needed) to ensure the best user experience based on the feedbacks received by the users.

*Source Code*

1. Contractor must ensure an industry recognized code management repository is used to store all source code files, with appropriate backup policies to prevent unauthorized access and loss of the work.
2. All source code must conform to recognized industry standards as governed by the language, including notation, design pattern and commentary.
3. All Intellectual property rights reside exclusively with the Client, the Contractor must ensure there are no infringements to these rights, if 3rd open-source party code libraries are being used.

### **Phase III – System Testing, Training of Users and Final Acceptance**

*System Testing*

In addition to the Contractor’s standard check-out and set-up tests, the Contractor shall perform the tests on the System and its components/subsystems before deployment.

The Contractor shall keep a system development version in the Development Environment. The Contractor shall regularly update the components of the development environment and support the regular reports with system demos, so respecting the Agile principles.

The Contractor shall submit test cases covering at least 80% of the developed functionality of the system and run the developed system components against the test cases. The Client and Contractor will check the entire business-cycle and the related technical performance through the tests before deployment or release.

If during the operational acceptance testing errors and bugs are identified, the Contractor shall use all reasonable endeavours to promptly remedy the identified defects and/or deficiencies. Once such remedies have been made, the Contractor shall notify the Client, and the Client and Contractor shall carry out re-testing of the System or concerned component/module/subsystem.

The Contractor shall provide details about the testing method and achieved results. The Contractor shall document and address the Client’s requests that will be classified into defects and modification requests if appropriate.

The Contractor will conduct the performance testing at least for two components: **a. Load testing; b. Stress testing.**

The operational acceptance criteria’s when the Client shall consider accepting the System are as follows:

* all the positive scenarios have been successfully performed
* at least 80% of the negative scenarios must be successfully handled
* there are no high-severity or critical bugs

In addition to load and stress testing, bidders must also include cost estimates for penetration testing and vulnerability testing in their Financial Proposal.

*Training of Users*

The Contractor shall provide training to the key-users appointed by the Client, aimed at delivering skills in future maintenance of the newly provided solution. All training sessions shall be conducted on-site or through on-line means.

*Support the roll out of the system*

The Contractor shall support the release and roll out of the system, fix bugs and errors after the system is launched and released. For release of iOS and Android mobile applications, the Contractor shall fully support the publication of the apps on Appstore and Google Play.

*General Inspections*

The Client shall have the right to inspect and/or test any components of the system to confirm their good working order and/or conformity to the Contract at the point of delivery and/or when the system is put into production.

Shall the inspected or tested components fail to conform to the ToR, the Client may reject the component(s), and the Contractor shall either replace the rejected component(s) or make alterations as necessary so that it meets the ToR and SRS document free of cost to the Client.

The Client has the right to request an expertise of the testing results from independent third parties. If the Client requires the Contractor to carry out any inspection and/or test by the independent third party, this shall be amicably agreed by all parties and due payment will be made by the Client in respect of the time for undertaking such inspection and/or test to achieve a final operational acceptance. Also, a due consideration will be given to the project implementation timeframe and other obligations of the Contractor so affected by the inspection.

### **Phase IV – Warranty, Technical Maintenance and Support**

The services of post-implementation maintenance and support during Defects Liability Period/ Warranty Period shall be provided by the Contractor that should be no less than one year and shall assure the removal of incidents and problems which occurred in the use of the System, which will be addressed and solved in due course, with minimum impact on the activity of the users.

The Contractor will provide a post-implementation warranty, which implies the provision of support services and maintenance services for the applications provided, for a period of **12 months** from the date of final acceptance of the System.

The price for the warranty services included in the initial agreement shall include all the support and post-implementation maintenance services, such as

* Fixing of bugs
* Investigation of errors detected during system operation

After the expiry of the warranty period the beneficiary of the System may request the extension of services provision.

The Bidder shall submit the price for the warranty services for a period of **12 months in its Financial Proposal.**

## Licensing and Intellectual Property Requirements

*Licensing*

1. The Contractor must obtain all necessary licenses and permissions before making any Third-Party Material for the purpose of the implementation of the System.
2. The Contractor shall deliver perpetual licenses to the Client that allow the System users to use the software for as long as the Client complies with all terms of the license agreement.
3. There must be no additional or hidden licensing costs for the proposed solution.
4. All needed licenses used in the System shall be provided by the Contractor, included in the Total Price and reflected in the Financial Proposal.
5. In addition, the cost of the licenses will be covered by the Client only for those agreed licenses which will not significantly increase the total budget of the Project (up to 5%) or for those licenses which is requested by the Client to implement the functionality/feature that has not been initially included in the ToR and SRS document.

*Intellectual Property Rights (IPR)*

1. All Intellectual Property Rights in the Contract Material vests in the Client.
2. The Contractor retains all Intellectual Property Rights in: (a) any COTS Software and existing derivatives thereof and (b) any other of Contractor’s Pre-existing Intellectual Property, which Contractor shall furnish during the course of the System implementation through a License.
3. If the Client needs to use any of the Auxiliary Material owned by the Contractor or any other of Contractor ‘s Pre-existing Intellectual Property to receive the full benefit of the Services, the Contractor shall grant a license to the Beneficiary. The Contractor shall provide perpetual and unlimited user licenses to the Beneficiary
4. The software platform will remain the intellectual property of the Client, who is entitled among other to use the System software for an indefinite period, develop, equip and adapt or sell it as a product or service.
5. All data stored in the System databases are owned by the Client. Access to these data is subject to the terms and conditions regarding the confidentiality of the information throughout the entire contractual period of the Contractor and beyond.

# Requirements to the Bidder

Overall experience of the ICT company:

* The company shall have at least 3 years of experience in the design, development, and implantation of the information systems
* The company and the proposed key personnel shall have implemented at least 3 projects in design, development, and implantation of the information systems of similar complexity
* The company shall provide links or demos of the completed or ongoing projects

# Requirements to the Team of the Project

The Contractor shall propose a team of specialist with the following roles and required qualifications

Key-1. Project Manager

* At least 5 (five) years of experience in project management
* At least 5 (five) years of experience in Business Process Reengineering (BPR)
* An experience as a project manager in at least 2 (two) projects for implementation of complex ICT solutions
* Experience in Real Estate Projects is an asset
* Full proficiency in English
* Knowledge of Georgian language is an asset.

Key-2. Business Analyst

* Experience as a Business Analyst in at least 3 (three) projects for the implementation of software web-based solutions
* At least 3 (three) years of experience on business-processes modelling in the context of IT systems and experience in user requirements elicitation
* Certification in Business Analysis proving advanced knowledge regarding requirements’ identification, analysis, prioritizing, management, communication, verification and validation is an asset
* Experience in Real Estate Projects is an asset
* Full proficiency in English
* Knowledge of Georgian language is an asset.

Key-4. Lead Software Engineer/Software Architect

* At least 7 (seven) years of professional experience in the field of development and implementation of web applications
* An experience as a System/Software Architect in at least 2 (two) projects for implementation of complex software web-based solutions
* At least 5 years of experience in leading a technical team
* must have experience with modern industry standard web technologies including cloud systems
* Full proficiency in English

Key-5. Senior Software Engineer (2)

* 5 years of relevant experience in software development and using of programming languages (front-end and backend)
* must have experience with modern industry standard web technologies including cloud systems
* Full proficiency in English

Other Non-key specialists may include Software Engineers and software Testing Engineer, DevOps.

The bidder shall submit the CVs only for Key specialists in the Technical Proposals. CVs of non-key specialists are not required.

Work Setting

The work setting for the assignment will include the following aspects:

## Timing and duration of the assignment

The Project must be completed within **52 weeks** from the date of the contract is signed with the Contractor. The technical warranty period will be **12 months** from the date of delivery and acceptance of the system.

## Reporting

The Contractor will work in close consultation and under the supervision of the Client’s Project Manager.

## Monitoring and Evaluation

The Client’s Project team led by the Project Manager in consultation are responsible for overall coordination, approval, monitoring and evaluation of all deliverables.

Requirements to the Proposal

The Bidder shall submit a Technical Proposal and Financial Proposal in accordance with this Terms of Reference (ToR).

## About the Company and Project References

In the Technical Proposal, the Contractor shall provide:

1. About the Company and Relevant Project References (maximum 3 pages)

Bidders must provide information demonstrating that they have the required qualifications and relevant experience to perform the services, in particular, by providing a list of completed or ongoing projects relevant to the assignment.

1. Approach and Methodology (maximum 3 pages)

The Bidder should describe in detail an approach by which they will conduct design, development and internal testing activities.

Methodology shall include details about proposed information technologies (hardware, system software, general purpose software, application software, standard software, custom software, etc.) and services testing activities. The methodology shall be updated after signing of the Contract Agreement and adapted to the Project Implementation Plan after receipt of acceptance from the Client.

The Bidder shall also submit in the Technical Proposal its proposed license model for the System solution, and the price of such license shall be included in the Total Price in the Financial Proposal.

## The Bidder shall also include in the Technical Proposal its vision on the System architecture at high level.

## Commentary on the Compliance with the Technical Requirements

For each of the Technical Requirements stated in Software Requirements Specification (SRS), the Bidder must describe how its Technical Proposal responds to each Requirement, demonstrating the substantial responsiveness of the overall design of the proposed System and the individual Information Technologies, Goods, and Services offered to those Requirements.

The Bidder shall use the following sample form to provide Item-by-item commentary and demonstrate their technical proposal to achieve the compliance with the Technical Requirements.

*Table 2-The sample form*

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier of the Requirement (if available)** | **Technical Requirement** | **Type** | **Bidder ’s technical response supporting compliance** |
| M0R001 | M0 must provide authentication service its users. Authenticated users obtain system-wide session | M |  |
|  |  |  |  |

One-or two-word responses, e.g. “Yes,” “No,” “Will comply,” are normally not sufficient to confirm technical responsiveness with Technical Requirements.

1. Preliminary Project Plan (maximum 3 pages and grand chart of implementation schedule)

The Bidder must provide a Preliminary Project Implementation Plan describing, among others, **activities, and human and material resources** that the Bidder proposes to employ in the management, coordination, and execution of all its responsibilities, if awarded the contract, as well as the estimated duration and completion date for each major activity as per the ToR.

The Preliminary Project Plan shall comprise of:

* 1. Human Resource Plan
  2. Implementation Schedule

For describing human resources, the Bidder shall use the following sample form. The Proposal shall identify and name the **Key specialists** proposed for this Project and provide their **CVs**. As for the non-key personnel, it will suffice if the Technical Proposal includes proposed positions, number of personnel for each proposed position and their level of effort (man-months).

*Table 2-Proposed Human Resources and the Level of Effort*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name of Proposed Personnel** | **Key or Non/Key** | **Positions** | | **Total Period of Engagement**  **(man-months)** |
| **Key Personnel** | | | | | |
| 1 |  |  | |  |  |
| 2 |  |  | |  |  |
| 3 |  |  | |  |  |
| **Non-Key Personnel** | | | | | |
|  |  |  | |  |  |

In addition to the topics and points of emphasis, the Preliminary Project Plan MUST address the Implementation Schedule of planed activities and deliverables.

1. Project Management Approach (maximum 2 pages)

The Technical Proposal shall clearly state the overall project management approach. In the Technical proposal the Bidder shall submit a detailed description of the project management methodology that will be used in the project and will describe how the proposed experts will be involved. The Bidder shall describe in his technical proposal how the progress in project activities will be reported. The Bidder shall describe in detail the proposed reporting procedure in terms of reporting periods

1. CVs of key Proposed Personnel (maximum 2-3 pages)

The Technical Proposal shall include the CVs of the proposed Key personnel.

## Financial Proposal Form

The Financial Proposal shall comprise of:

1. Cost Breakdown per Deliverable

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Deliverable** | **Payment Structure**  **%** | **Price in USD**  **(The total amount)** |
| Deliverable 1 |  |  |  |
| Deliverable 2 |  |  |  |
| Deliverable 2 |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description of Activity** | **Position** | **Remuneration Rate per month**  **(USD)** | **Total Period of Engagement**  **(man-months)** | **Total Rate** |
| **I. Key Personnel Services** | | | | |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| **II. Out of Pocket Expenses** | | | | |
| Unit |  | Unit Price (USD) | Quantity | Total (USD) |
| Travel Costs | |  |  |  |
| Daily Allowance including accommodation | |  |  |  |
| **III. Other Direct Related Costs (License, etc)** | | | | |
| Licenses | |  |  |  |
| Warranty | |  | 12 months |  |
| Security and Performance Testing | |  |  |  |
| Overhead expenses | |  |  |  |
| etc. | |  |  |  |
| **IV. Total Budget** | |  |  |  |